NORTHWEST AREA (NANA) COASTAL RESOURCE SERVICE AREA COASTAL MANAGEMENT PROGRAM

DEC 1985

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BILL SHEFFIELD, GOVERNOR

CENTRAL OFFICE
POUCH AW
JUNEAU, ALASKA 99811-0165
PHONE: (907) 465-3562

OFFICE OF THE GOVERNOR

OFFICE OF MANAGEMENT AND BUDGET
DIVISION OF GOVERNMENTAL COORDINATION

SOUTHEAST REGIONAL OFFICE
431 NORTH FRANKLIN
POUCH AW, SUITE 101
JUNEAU, ALASKA 99811-0165
PHONE: (907) 465-3562

SOUTHCENTRAL REGIONAL OFFICE
2600 DENALI STREET
SUITE 700
ANCHORAGE, ALASKA 99503-2798
PHONE: (907) 274-1581

NORTHERN REGIONAL OFFICE
675 SEVENTH AVENUE
STATION H
FAIRBANKS, ALASKA 99701-4596
PHONE: (907) 456-3084

December 30, 1985

Dear ACMP Participant:

Subject: Coastal Policy Council Review of the Northwest Area (NANA) Coastal Resource Service Area Coastal Management Program

The NANA Coastal Resource Service Area Coastal Management Program has been submitted to the Coastal Policy Council (CPC) for review and approval. On behalf of the Council, the Division of Governmental Coordination (DGC) has reviewed the program to determine whether it meets the requirements of the Alaska Coastal Management Program (ACMP).

The review packet for the district program includes the following items:

1. The NANA Coastal Resource Service Area Coastal Management Program document, Volume 1.
2. Preliminary findings and conclusions prepared by DGC on the conceptually approved district program.
3. The NANA Coastal Resource Service Area Background Report, Volume 2 (separate cover).
4. The NANA Coastal Resource Service Area map atlas (separate cover).

Reviewers are being asked to comment on DGC's findings and conclusions. Reviewers should indicate whether they agree with DGC's recommendations on the program. In particular, reviewers should comment on whether the policies of the program should be approved and whether they believe that the requirements of the ACMP guidelines have been met. DGC's recommendations are preliminary. They will be revised to reflect comments received during this review.

The distribution of findings and conclusions by this office begins the formal review period preceding CPC consideration of the NANA Coastal Management Plan (CMP). Review procedures are outlined in 6 AAC 85.150. The review period for the enclosed

findings and conclusions is 45 days. Comments must be received by February 10, 1986. This comment deadline is established by statute and may not be extended. Comments received after the deadline may not be considered.

Comments should be directed to the Coastal Policy Council through the Division of Governmental Coordination at Pouch AW, Juneau, Alaska 99811. They may be delivered to the Fifth and Franklin Building, 431 North Franklin Street, fourth floor, Juneau.

Thank you for your interest in this program. Additional copies of the review packet are available from this Division. If you have questions about this program or about the review process please contact Jan Mills at 465-3562.

Sincerely,

Robert L. Grogan
Associate Director
Division of Governmental
Coordination

Enclosures

cc/enc: Dave Weingartner, Kotzebue
Jon Isaacs, Anchorage

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Schedule for Coastal Policy Council Review
of the NANA District Program

December 30, 1985

December 30	The program and the Division of Governmental Coordination's (DGC) preliminary recommendations are sent to the Council and reviewers. The review period begins.
February ~~12~~ 18	Closing date for 45-day review period; comments must be <u>received</u> by this date.
March ~~12~~ 17	DGC mails revised findings and conclusions as part of the Coastal Policy Council packet. (This date is approximate.)
Early April	Projected date for Coastal Policy Council meeting.

Division of Governmental Coordination
Introduction to
Preliminary Findings and Conclusions

December 30, 1985

District: NANA Coastal Resource Service Area

Documents: NANA Coastal Management Program, Volume I, October 1985

NANA Coastal Management Program, Volume II, October 1985, Background Report

NANA Coastal Management Program, Map Atlas, October 1985

The NANA Coastal Resource Service Area Coastal Management Program has been submitted to the Coastal Policy Council (CPC). The Division of Governmental Coordination (DGC), as staff to the Council, has reviewed the NANA Coastal Management Program to determine whether it meets the requirements of the Alaska Coastal Management Program (ACMP) Standards and Guidelines (6 AAC 80 and 6 AAC 85). The enclosed findings and conclusions on the NANA program present the results of the review.

SUMMARY

The NANA Coastal Management Program document describes the district's boundaries, goals and objectives, subject uses, proper and improper uses, policies, and implementation procedures. The resource inventory is presented in volume 2 and in the map atlas.

DGC concludes that the NANA program is substantially consistent with the ACMP and has met all procedural requirements. The staff's review of the proposed NANA boundary under 6 AAC 85.040 will continue during the 45-day public review of the enclosed material. The staff recommendation for the boundary will be provided in the revised findings and conclusion for the program.

The resource inventory and analysis of the NANA CRSA program provides an excellent basis for development of policies for the region. The policies are well developed and are written in enforceable language. DGC has made only a few recommendations for rewording or additional clarification of policies.

FORMAT OF FINDINGS AND CONCLUSIONS

The findings and conclusions include the text of each ACMP requirement, a description of the relevant portion of the NANA program, and DGC's conclusions on whether each requirement has been met.

The findings and conclusions display the text of each existing ACMP standard and guideline. The "findings" indicate how the NANA program has addressed each requirement. The "conclusions" indicate whether each requirement has been met.

In addition, DGC has included the text of the enforceable policies of the NANA program that address each of the standards of the ACMP (6 AAC 80). DGC has also indicated whether the new policies replace the existing State standards or whether they supplement the existing standards. This is intended to aid reviewers in evaluating the impact of the policies that the NANA Coastal Resource Service Area (CRSA) Board is asking the Council to adopt. The numbering assigned to the policies in the district plan is retained.

Distribution of the conceptually-approved NANA Coastal Management Program and the preliminary findings and conclusions initiates the Council's formal review process. Comments are due to DGC by 4:30 p.m., on February 12, 1986.

Materials Considered in Preliminary Findings and Conclusions
NANA Coastal Management Program

NANA Coastal Management Program, Concept-Approved Draft. Three volumes. October 1985.

NANA Coastal Management Program, Public Hearing Draft, September 1984.

NANA Coastal Management Program Resource Inventory, February 1982.

District Record File on the NANA Coastal Management Program, maintained by the Division of Governmental Coordination.

NANA CRSA COASTAL MANAGEMENT PROGRAM
PRELIMINARY FINDINGS AND CONCLUSIONS
December 30, 1985

Notes: General Use Area policies apply throughout the NANA district. Special Use Area policies and Restricted/Sensitive Use Area policies apply only within the boundaries of Special Use Areas and Restricted/Sensitive Use Areas respectively identified on Map 1.

Language proposed for addition is underlined. Language proposed for deletion is [BRACKETED AND CAPITALIZED].

6 AAC 80.040. COASTAL DEVELOPMENT

(a) In planning for and approving development in coastal areas, districts and state agencies shall give, in the following order, priority to:

(1) water-dependent uses and activities;

(2) water-related uses and activities; and

(3) uses and activities which are neither water-dependent nor water-related for which there is no feasible and prudent inland alternative to meet the public need for the use or activity.

(b) The placement of structures and the discharge of dredged or fill material into coastal water must, at a minimum, comply with the standards contained in Parts 320-323, Title 33, Code of Federal Regulations (Vol. 42 of the Federal Register, pp. 37133 - 47 (July 19, 1977)).

NEW GENERAL USE AREA POLICIES:

G-1 Water Dependent and Related

In planning for and approving development in shoreline and waterfront areas, the NANA Coastal Management Program and state agencies shall give, in the following order, priority to:

- water-dependent uses and activities;
- water-related uses and activities; and
- uses and activities which are neither water-dependent nor water-related for which there is no feasible and prudent inland alternative to meet the public need for the use or activity.

G-2 Dredge and Fill

Shoreline modifications and the discharge of dredged or fill material shall comply with existing State and federal standards.

G-3 Multiple Use

To the extent feasible and prudent, piers, cargo handling, storage, parking, and other facilities shall be designed and used to prevent the need for duplicative facilities.

G-4 Compatibility

To the extent feasible and prudent, activities on and uses of coastal lands and waters shall be compatible with adjacent land and water uses.

G-5 Optimum Resource Use

Maintenance and enhancement of fisheries, subsistence and commercial fishing sites, and fishing gear storage areas shall be given priority consideration for shoreline use.

G-6 Industrial Development

Development of industrial and energy-related facilities shall include programs to replace fish stock of commercial and subsistence importance that will be lost due to aspects of project construction and operations.

G-7 Development Timing

Offshore resource exploration and development activities must be timed and/or located to avoid significant interference with commercial and subsistence fishing activities.

Finding: Policy G-1 should be revised, as recommended, for clarity.

Policy G-6 should be clarified to explain when it is to be applied.

A change in language for policy G-7 is recommended.

The new policies incorporate and supplement the existing standard, 6 AAC 80.040, which remains in effect.

Conclusion: With the changes noted, the policies would be consistent with the ACMP.

6 AAC 80.050. GEOPHYSICAL HAZARD AREAS

(a) Districts and state agencies shall identify known geophysical hazard areas and areas of high development potential in which there is a substantial possibility that geophysical hazards may occur.

Finding: The geophysical hazards in the NANA region are identified at pp. 12-18 of Chapter B of the background report (vol. 2).

Conclusion: The requirement has been met.

(b) Development in areas identified under (a) of this section may not be approved by the appropriate state or local authority until siting, design, and construction measures for minimizing property damage and protecting against loss of life have been provided.

NEW GENERAL USE AREA POLICIES:

F-1 Design and Siting Criteria

Industrial and commercial development shall not be located in a geophysical hazard area if a feasible and prudent alternate site [DOES NOT] exists. Development in hazard areas shall be preceded by adequate siting, design and construction measures for minimizing property damage and protecting against loss of life.

F-2 Erosion

To the extent feasible and prudent, development and resource extraction shall be sited and conducted to avoid increasing coastal erosion and adversely impacting coastal processes.

F-3 Coastal/Seiche Flooding

To the extent feasible and prudent, industrial and commercial development outside established communities and within areas subject to storm surge flooding shall be limited to water dependent/water-related uses. Water-dependent development within such areas shall mitigate the potential hazard through siting/design/construction measures.

F-4 Landslides and Mass Wasting Hazards

To the extent feasible and prudent, commercial and residential development shall avoid areas identified as subject to landslide and mass wasting hazards. Industrial development shall mitigate the hazard through siting/design/construction measures.

F-5 Riverine Flooding

To the extent feasible and prudent, industrial and commercial development shall not be sited within the active floodplain and highwater channels. Structures within areas that flood annually must be sited, designed and constructed to minimize property damage and protect against loss of life.

Finding: Recommended language for policy F-1 clarifies its intent.

Recommended language for policy F-2 clarifies that the policy intends to avoid adverse impacts.

The policies supplement the existing State standard, 6 AAC 80.050, which remains in effect.

Conclusion: With the recommended revisions, the new policies would be consistent with the ACMP.

6 AAC 80.060. RECREATION

(a) Districts shall designate areas for recreational use. Criteria for designation of areas of recreational use are

(1) the area receives significant use by persons engaging in recreational pursuits or is a major tourist destination; or

(2) the area has potential for high quality recreational use because of physical, biological, or cultural features.

Finding: The program discusses tourism and recreation on pp. 75-76 of the background report (vol. II). No areas are designated specifically for recreational use, but guidance for recreational uses and users is given in the policies listed below.

Conclusion: The requirement has been met.

(b) Districts and state agencies shall give high priority to maintaining and, where appropriate, increasing public access to coastal water.

NEW GENERAL USE AREA POLICIES:

M-2 Coordination

Recreational planning for federal and state lands within the district must be coordinated with the CRSA Board, NANA, KIC, affected local governments, and other landowners, through the planning processes referenced in Section 7.7 of the Implementation Chapter.

[M-3 EASEMENTS

RECREATION USE OF PRIVATE LANDS AND WATERS SHALL STAY WITHIN DESIGNATED EASEMENTS AND CAMPSITES UNLESS OTHERWISE ALLOWED THROUGH PERMITS OR PERMISSION FROM PRIVATE OWNERS.]

M-4 Cleanup

All recreational users shall comply with federal, state and private permit requirements pertaining to clean up of camps after usage.

M-5 Subsistence Conflicts

Planning for recreational fishing and hunting shall minimize interference with subsistence activities.

M-6 Compatibility

Recreational facilities shall be sited, designed and constructed to minimize conflicts with other uses, activities, and user groups not compatible with recreational uses.

M-7 Scenic Views

Recreational and access developments shall, to the extent feasible and prudent, preserve or enhance scenic views and vistas as well as improve the aesthetic value of the area.

N-2 Easements

Recreational, industrial and other users shall utilize permitted or identified easements through or adjacent to private lands unless having received appropriate permits or permission from private landowners.

Finding: Policy M-3 is redundant to policy N-2, and should be deleted. N-2 should be broadened to include other users, in addition to recreational users.

These policies supplement the existing State standard, 6 AAC 80.060(b), which remains in effect.

Conclusion: The policies are consistent with the ACMP.

6 AAC 80.070. ENERGY FACILITIES

(a) Sites suitable for the development of major energy facilities must be identified by districts and the state in cooperation with districts.

(b) The siting and approval of major energy facilities by districts

and state agencies must be based, to the extent feasible and prudent, on the following standards:

(1) site facilities so as to minimize adverse environmental and social effects while satisfying industrial requirements;

(2) site facilities so as to be compatible with existing and subsequent adjacent uses and projected community needs;

(3) consolidate facilities;

(4) consider the concurrent use of facilities for public or economic reasons;

(5) cooperate with landowners, developers, and federal agencies in the development of facilities;

(6) select sites with sufficient acreage to allow for reasonable expansion of facilities;

(7) site facilities where existing infrastructure, including roads, docks, and airstrips, is capable of satisfying industrial requirements;

(8) select harbors and shipping routes with least exposure to reefs, shoals, drift ice, and other obstructions;

(9) encourage the use of vessel traffic control and collision avoidance systems;

(10) select sites where development will require minimal site clearing, dredging and construction in productive habitats;

(11) site facilities so as to minimize the probability, along shipping routes, of spills or other forms of contamination which affect fishing grounds, spawning grounds, and other biologically productive or vulnerable habitats, including marine mammal rookeries and hauling out grounds and waterfowl nesting areas;

(12) site facilities so that the design and construction of those facilities and support infrastructures in coastal areas of Alaska will allow for the free passage and movement of fish and wildlife with due consideration for historic migratory patterns and so that areas of particular scenic, recreational, environmental, or cultural value will be protected;

(13) site facilities in areas of least biological productivity, diversity, and vulnerability and where effluents and spills can be controlled or contained;

(14) site facilities where winds and air currents disperse airborne emissions which cannot be captured before escape into the atmosphere;

(15) select sites in areas which are designated for industrial purposes and where industrial traffic is minimized through population centers; and

(16) select sites where vessel movements will not result in overcrowded harbors or interfere with fishing operations and equipment.

(c) Districts shall consider that the uses authorized by the issuance of state and federal leases for mineral and petroleum resource extraction are uses of state concern.

NEW GENERAL USE AREA POLICIES:

J-2 Planning Requirements

The state and federal government shall participate with the CRSA Board, affected land owners and affected local governments in a planning process referenced in Chapter 7.7 for all energy exploration and development projects prior to development taking place.

J-3 Siting Considerations

The siting and approval of major energy facilities shall be based, to the extent feasible and prudent on the following standards:

- site facilities so as to be compatible with existing and subsequent adjacent uses and projected community needs;
- consolidate facilities, including use of waste heat;
- consider the concurrent use of facilities for public or economic reasons;
- cooperate with private landowners, local governments, developers, and state and federal agencies in the development of facilities;
- select sites with sufficient acreage to allow for reasonable expansion of facilities;
- site facilities in areas of least biological productivity, diversity, and vulnerability and where effluents and spills can be controlled or contained;
- site facilities where winds and air currents maximize dispersal of airborne emissions which cannot be captured before escape into the atmosphere.

J-4 Coordination

The site planning of community-related energy facilities shall be coordinated with NANA, KIC, and local governments of the communities affected, as outlined in Section 7.7 of the Implementation Section.

J-5 Energy Facilities

To the extent feasible and prudent, existing energy facilities, including pipelines and transmission lines, shall be used to meet additional need for production, transmission/shipment, and distribution of energy resources.

Finding: A change to policy J-3 is proposed to make it consistent with 6 AAC 80.070(b)(14).

A revision to policy J-4 is proposed to clarify the procedure that will be used to coordinate site-planning.

The new policies supplement the existing State standard, 6 AAC 80.070, which remains in effect.

Conclusion: With the changes noted, these policies would be consistent with the ACMP.

6 AAC 80.080. TRANSPORTATION AND UTILITIES

(a) Transportation and utility routes and facilities in the coastal area must be sited, designed, and constructed so as to be compatible with district programs.

(b) Transportation and utility routes and facilities must be sited inland from beaches and shorelines unless the route or facility is water-dependent or no feasible and prudent inland alternative exists to meet the public need for the route or facility.

NEW GENERAL USE AREA POLICIES:

I-2 Planning Processes

The state and federal government shall participate with the CRSA Board, affected land owners, and affected local governments in planning processes referenced in Chapter 7.7 for all transportation corridor designations.

I-3 Water Dependence

Transportation and utility routes and facilities shall be sited inland from beaches and shorelines unless the route or facility is water-dependent or no feasible and prudent inland alternative exists to meet the public need for the route or facility.

I-4 Minimize Impacts

Transportation and Utility Corridor Areas shall be sited, designed, and operated so that:

(a) impacts on biological resources and local community way of life are kept to a minimum;

(b) increased take of subsistence resources by non-NANA CRSA residents is discouraged, particularly when a scarcity of resources exists;

(c) duplication of corridors and facilities will be minimized.

I-5 Migratory Passage

To the extent feasible and prudent, transportation and utility corridor uses shall be sited, designed, and operated to allow for the free passage and movement of fish and wildlife with due consideration for historic migratory patterns.

I-6 Anadromous Fish Streams

To the extent feasible and prudent, access roads shall avoid crossing anadromous streams. Bridge or culvert construction and design must minimize habitat disturbance and allow for free fish passage up to and including the mean annual floodplain. Phasing of construction scheduling shall be done to avoid critical migration periods for salmon and other anadromous species.

I-7 Stream Crossings

Road and pipeline crossings of rivers or streams shall be minimized and to the extent feasible and prudent consolidated at one location to reduce the number of crossings in an individual drainage.

I-8 Facility Design, Construction, and Maintenance

Highway, airport, port, and utility design, construction, and maintenance must minimize alteration of water courses, wetlands, and intertidal marshes, and visual degradation.

NEW SPECIAL USE AREA POLICIES:

KK Red Dog Transportation Corridor Special Use Area

KK-6 Peregrine Falcon Sites

Active peregrine falcon nesting sites shall be protected, through the use of buffer zones, from any construction or use of transportation systems.

KK-7 Impact Mitigation

Adverse impacts on wildlife and habitat shall be mitigated during construction of transportation systems.

Finding: The intent of policy I-4b, and the means of implementing this policy, should be stated more clearly.

The new policies incorporate and supplement the existing State standard, 6 AAC 80.080, which remains in effect.

Conclusion: With the suggested change, the new policies are consistent with the ACMP.

6 AAC 80.090. FISH AND SEAFOOD PROCESSING

Districts shall identify and may designate areas of the coast suitable for the location or development of facilities related to commercial fishing and seafood processing.

Finding: No new policies are proposed. The State standard, 6 AAC 80.090, remains in effect.

Conclusion: No change to the State standard is proposed.

6 AAC 80.100. TIMBER HARVEST AND PROCESSING

Notwithstanding any other provision of this chapter, the statutes pertaining to and the regulations and procedures of the Alaska Forest Resources and Practices Regulations with respect to the harvest and processing of timber are incorporated into the Alaska coastal management program and constitute the components of the coastal management program with respect to those purposes.

NEW GENERAL USE AREA POLICIES:

L-1 Timber Management Practices

Best management practices shall be used in all forestry and timber harvest activities in accordance with the Forest Resource and Practice Regulations (11 AAC 95) of the Forest Practices Act (AS 41.17).

L-2 Planning Processes

Entities proposing timber harvest and processing within the region must participate with the CRSA Board, affected local governments, and affected landowners in the planning processes referenced in Chapter 7.7.

L-3 Subsistence Priority

The protection of subsistence resources shall be incorporated in all timber management decisions.

L-4 Local Participation

Regional residents shall participate in the decision-making process in designating cutting around their respective villages, in the planning processes referenced in Section 7.7 of the Implementation Chapter.

L-5 Habitat Impact

Timber harvesting activities shall be conducted in manner that minimizes damage to or loss of anadromous fish habitat and adverse impacts to important caribou habitat and migration routes.

Finding: NANA has suggested the new language for policy L-3 to make the sentence complete.

The new policies incorporate and supplement the existing State standard, 6 AAC 80.100, which remains in effect.

Conclusion: The policies are consistent with the ACMP.

6 AAC 80.110. MINING AND MINERAL PROCESSING

(a) Mining and mineral processing in the coastal area must be regulated, designed, and conducted so as to be compatible with the standards contained in this chapter, adjacent uses and activities, statewide and national needs, and district programs.

(b) Sand and gravel may be extracted from coastal waters, intertidal areas, barrier islands, and spits, when there is no feasible and prudent alternative to coastal extraction which will meet the public need for the sand or gravel.

NEW GENERAL USE AREA POLICIES:

K-2 Planning Processes

Entities proposing major mining activities must participate with the CRSA Board, affected local governments, and affected landowners in the planning process referenced in Chapter 7.7.

K-3 Project Design

Mining and metal processing in the district shall be regulated, designed, and conducted so as to be compatible with the standards contained in this plan, and adjacent uses and activities.

K-4 Coastal Gravel Extraction

Sand and gravel may be extracted from coastal waters, intertidal areas, barrier islands, and spits, when there is no feasible and prudent alternative to coastal extraction which will meet the public need for the sand or gravel. Such extraction activities must minimize adverse impacts on wave-energy, sediment transport, herring and anadromous fish spawning and rearing habitat, and waterfowl habitat; minimize increases in shoreline erosion; and [MUST] minimize increases in sedimentation.

K-5 Floodplain Gravel Extraction

a. Removal of floodplain gravel from small tundra origin streams shall be prohibited. [IN THE KOBUK, NOATAK, AMBLER, AND OTHER MAJOR RIVERS, GRAVEL EXTRACTION MUST INCORPORATE APPLICABLE GUIDELINES PRESENTED IN APPENDIX D.]

b. To the extent feasible and prudent, gravel shall be mined from the following river types in decreasing order of preference: braided, split channel, meandering, sinuous and straight. When possible, exposed gravel bars in large active floodplains shall be considered for mining.

c. To the extent feasible and prudent, changes to channel hydraulics shall be avoided.

d. Gravel pits shall be located to minimize the probability of channel diversion through the site. Adequate undisturbed buffers shall be maintained between the material site and the active channel.

K-6 Local Participation

Regional residents shall be provided the opportunity to participate in the decision-making process and provide recommendations regarding mining activities on lands around their respective villages, as outlined in Section 7.7 in the [NEW] Implementation Chapter.

K-7 Plan Review

Plans for mining gravel in floodplains shall be reviewed by the CRSA Board prior to initiating gravel mining, as outlined in Section 7.7 of the Implementation Chapter.

K-8 Existing Sites

To the extent feasible and prudent, existing sites as defined in the NANA Regional Strategies, shall be used to meet demands for sand and gravel within the region.

K-9 Reclamation

Reclamation of all upland and floodplain sites shall be required, and at a minimum will include the following elements, as applicable:

- storage of top soil above the annual floodline
- storage of overburden above the annual floodline
- regrading of all disturbed areas to stable slopes that blend with the natural topography
- revegetation of slopes as necessary with suitable vegetation to prevent erosion, with preference towards native vegetation

NEW SPECIAL USE AREA POLICIES:

II Maniilaq River/Ambler Lowlands Special Use Area

II-3 Water Quality

Mining activities, including hardrock, placer and gravel, shall avoid or minimize impacts on water quality and increased sediment load in rivers, lakes, and streams.

JJ Pah River Trapping Special Use Area

JJ-3 Water Quality

Mining activities, including hardrock, placer and gravel, shall avoid or minimize adverse impacts on water quality and increased sediment load in rivers, lakes, and streams.

KK Red Dog Transportation Corridor Special Use Area

KK-5 Gravel Extraction Sites

Gravel extraction sites shall be reclaimed upon completion of operations.

NEW RESTRICTED/SENSITIVE USE AREA POLICIES:

CCC Kobuk River Sheefish/Whitefish Spawning and Use Area

CCC-1 Prohibited Uses

Gravel extraction and placer mining activities within the active floodplain are prohibited.

DDD Selawik River/Sheefish Whitefish Spawning Area

DDD-1 Prohibited Uses

Gravel extraction and placer mining activities within the active floodplain are prohibited.

EEE Wulik River Arctic Char Overwintering and Spawning Area

EEE-1 Prohibited Uses

The following activities are prohibited:

- Gravel extraction, placer mining, and placement of structures within the stream such as bridges, culverts, and pipelines year round,
- new and expansion of existing commercial and industrial water withdrawal and effluent discharge during fall, winter, and spring.

Finding: Policy K-5 references Appendix D which is not presented in this plan. Therefore, the district has summarized the guidelines in policy K-5. The underlined language is NANA's new proposed policy for floodplain gravel extraction.

Policy K-8 should specify the referenced gravel extraction sites in this plan, or the policy should be reworded to provide general criteria for site selection.

Minor language changes are recommended for policies K-4 and K-6.

The new policies incorporate and supplement the existing State standard, 6 AAC 80.110, which remains in effect.

Conclusion: With the changes noted these policies would be consistent with the ACMP.

6 AAC 80.120. SUBSISTENCE

(a) Districts and state agencies shall recognize and assure opportunities for subsistence usage of coastal areas and resources.

(b) Districts shall identify areas in which subsistence is the dominant use of coastal resource.

(c) Districts may, after consultation with appropriate state agencies, Native corporations, and any other persons or groups, designate areas identified under (b) of this section as subsistence zones in which subsistence uses and activities have priority over all non-subsistence uses and activities.

(d) Before a potentially conflicting use or activity may be authorized within areas designated under (c) of this section, a study of the possible adverse impacts of the proposed potentially conflicting use or activity upon subsistence usage must be conducted and appropriate safeguards to assure subsistence usage must be provided.

NEW GENERAL USE AREA POLICIES:

A-1 Subsistence Priority

Subsistence use of coastal lands and waters is the primary and highest priority use of all lands and waters within the coastal management plan area; therefore all other land/water management uses and activities shall accommodate subsistence uses.

A-4 Site Plans

Site development plans shall include provisions to accommodate subsistence and minimize any adverse impacts upon it.

A-5 Access to Resources

Traditional and customary access to subsistence areas shall be maintained unless alternate access acceptable to subsistence users is provided.

N-1 Subsistence Access

Federal, State and local management plans and specific project development shall allow access to subsistence resources and activities.

NEW SPECIAL USE AREA POLICIES:

AA Sisoalik Spit Special Use Area

AA-1 Subsistence

Non-subsistence uses and activities shall not adversely impact subsistence activities such as egg gathering, waterfowl hunting, marine mammal hunting, and fishing between June 1 and September 30.

AA-4 Commercial Fishing

During the commercial fishing season, July and August, commercial fishing and subsistence activities are priority uses and adverse impacts with these activities shall be minimized.

AA-5 Alternative Sites

To the extent feasible and prudent, entities proposing non-subsistence/non-commercial fishing uses and activities must locate such activities at alternative sites outside the area.

AA-6 Minimize Impacts

Other uses and activities shall be located, scheduled, and managed to avoid or minimize adverse impact on commercial fishing and subsistence uses and activities.

AA-7 Mitigation

Entities proposing uses and activities shall incorporate [DESCRIBE] mitigation measures into their projects [USED] to adequately protect subsistence, cultural, and biological resources. These measures shall be described in project applications.

BB Cape Krusenstern Special Use Area

BB-1 Subsistence

Non-subsistence uses and activities shall not adversely impact subsistence activities between March 15 and October 31.

BB-5 Alternative Sites

To the extent feasible and prudent, entities proposing uses and activities not related to cultural resource management and subsistence must locate such activities at alternative sites outside the area.

BB-6 Minimize Impacts

Uses and activities shall be managed, scheduled, and located to avoid or minimize adverse impacts on cultural resources and subsistence activities.

BB-7 Mitigation

Entities proposing uses and activities shall incorporate [DESCRIBE] mitigation measures [USED] to adequately protect cultural and subsistence resources. These measures shall be described in project applications.

CC Kobuk/Selawik Lakes Special Use Area

CC-1 Subsistence

Offshore activities and uses not related to subsistence shall not adversely impact the following spring and fall activities and uses:

- seal hunting (September-October)
- smelt and herring spawning (May-June)
- waterfowl hunting (April 15-October)
- sheefish fishing (November-May)

CC-3 Alternative Sites

To the extent feasible and prudent, entities proposing uses and activities not related to subsistence, commercial fishing, and biological resource management shall locate such activities at alternative sites outside the area.

CC-4 Minimize Impacts

Uses and activities shall be sited, scheduled and operated to avoid or minimize adverse impacts to subsistence activities, commercial fishing, and biological resources.

CC-5 Mitigation

Entities proposing uses and activities shall incorporate [DESCRIBE] mitigation measures into their projects [USED] to adequately protect subsistence activities, commercial fishing, and biological resources. These measures shall be described in project applications.

DD Cape Espenberg/Goodhope River Special Use Area

DD-1 Subsistence

Non-subsistence activities shall not adversely impact the following activities:

- seal hunting (May 1-July 15)
- fall waterfowl hunting
- summer egg gathering
- walrus hunting (June)

DD-3 Alternative Sites

To the extent feasible and prudent, entities proposing uses and activities not related to subsistence activities and fish and wildlife management shall locate such activities at alternative sites outside the area.

DD-4 Minimize Impacts

Uses and activities shall be sited, scheduled and operated to avoid or minimize adverse impacts to subsistence activities and biological resources.

DD-5 Mitigation

Entities proposing uses and activities shall incorporate [DESCRIBE] mitigation measures into their projects to adequately protect subsistence activities and biological resources. These measures shall be described in project applications.

EE Kobuk River Delta Special Use Area

EE-1 Subsistence

Uses and activities not related to subsistence shall not adversely impact the following activities:

- waterfowl hunting (July 1-August 15)
- spring and summer sheefish fishing
- winter and spring muskrat trapping

EE-4 Alternative Sites

To the extent feasible and prudent, entities proposing uses and activities not related to subsistence activities and commercial fishing and fish and wildlife management must locate such activities at alternative sites outside the area.

EE-5 Impact Analysis

Entities proposing uses and activities within this area shall present an analysis of potential impacts on subsistence activities, fish and wildlife habitat and populations to the NANA CRSA Board.

EE-6 Minimize Impacts

Uses and activities shall be sited, scheduled and operated to avoid or minimize adverse impacts to subsistence activities and biological resources.

EE-7 Mitigation

Entities proposing uses and activities shall incorporate [DESCRIBE] mitigation measures into their projects to adequately protect subsistence and biological resources. These measures shall be described in project applications.

FF Selawik River Delta Special Use Area

FF-1 Subsistence

Uses and activities not related to subsistence shall not adversely impact the following activities:

- spring waterfowl hunting (April-October)
- spring and summer sheefish fishing
- winter/spring muskrat trapping

FF-4 Alternative Sites

To the extent feasible and prudent, entities proposing uses and activities not related to subsistence activities and fish and wildlife management must locate such activities at alternative sites outside the area.

FF-5 Impact Analysis

Entities proposing uses and activities within this area shall present an analysis of potential impacts on subsistence activities and fish and wildlife habitat and populations to the NANA CRSA Board.

FF-6 Minimize Impacts

Uses and activities shall be located, scheduled and managed to avoid or minimize adverse impacts to subsistence activities and biological resources.

FF-7 Mitigation

Entities proposing uses and activities shall incorporate

[DESCRIBE] mitigation measures into their projects to adequately protect subsistence and biological resources. These measures shall be described in project applications.

GG Salmon River Special Use Area

GG-1 Subsistence

Uses and activities not related to subsistence shall not adversely impact the following activities:

- caribou hunting (mid-August to mid-October)
- salmon and whitefish fishing (August-September)
- furbearer trapping

GG-4 Alternative Sites

To the extent feasible and prudent, entities proposing uses and activities not related to subsistence and wildlife management must locate such activities at alternative sites outside the area.

GG-5 Impact Analysis

Entities proposing uses and activities within the area not related to subsistence or fish and wildlife management must present an analysis of impacts on fishery resources and caribou migration and habitat to the NANA CRSA Board.

HH Selawik/Hunt/Redstone Rivers Caribou Migration Corridor Special Use Area

HH-1 Subsistence

Uses and activities not related to subsistence shall not adversely impact fall caribou hunting between mid-August and mid-October.

HH-3 Alternative Sites

To the extent feasible and prudent, entities proposing uses and activities not related to subsistence and wildlife management must locate such activities at alternative sites outside the area.

HH-4 Impact Analysis

Entities proposing uses and activities within the area not related to subsistence wildlife management must present an analysis of impacts on caribou migration and habitat to the NANA CRSA Board.

HH-5 Minimize Impacts

Uses and activities shall be sited, scheduled, and operated to avoid or minimize adverse impact to caribou migration.

II Manilaq River/Ambler Lowlands Special Use Area

II-1 Subsistence

Uses and activities not related to subsistence shall not adversely impact the following activities:

- fall caribou hunting (mid-August to mid-October)
- waterfowl hunting (spring and summer)
- trapping (fall and winter)

II-4 Alternative Sites

To the extent feasible and prudent, entities proposing uses and activities not related to subsistence and wildlife management shall locate such activities at alternative sites outside the area.

II-5 Impact Analysis

Entities proposing uses and activities within this area not related to subsistence wildlife management must present an analysis of impacts on subsistence activities and caribou migration habitat to the NANA CRSA Board.

II-6 Minimize Impacts

Uses and activities shall be sited, scheduled, and operated to avoid or minimize adverse impact to subsistence activities and caribou migration.

JJ Pah River Trapping Special Use Area

JJ-1 Subsistence

Uses and activities not related to subsistence shall not adversely impact the following activities:

- fall caribou hunting (mid-August to mid-October)
- waterfowl hunting (spring and summer)
- trapping (fall and winter)

JJ-4 Alternative Sites

To the extent feasible and prudent, entities proposing uses and activities not related to subsistence and wildlife management shall locate such activities at alternative sites outside the area.

JJ-5 Impact Analysis

Entities proposing uses and activities within this area not related to subsistence wildlife management shall present an analysis of impacts on subsistence activities and caribou migration habitat to the NANA CRSA Board.

JJ-6 Minimize Impacts

Uses and activities shall be sited, scheduled, and operated to avoid or minimize adverse impact to subsistence activities and caribou migration.

KK Red Dog Transportation Corridor Special Use Area

KK-8 Coordination

Entities proposing non-subsistence related uses and activities shall demonstrate that they have coordinated with the Red Dog project subsistence committee sponsored by the NANA Corporation.

LL Inmachuk River Special Use Area

LL-1 Subsistence

Uses and activities not related to subsistence shall not adversely impact the following activities:

- salmon and char fishing (July-September)
- moose hunting (September-October)
- furbearer trapping

LL-4 Alternative Sites

To the extent feasible and prudent, entities proposing uses and activities not related to subsistence and wildlife management shall locate such activities at alternative sites outside the area.

LL-5 Impact Analysis

Entities proposing uses and activities within the area not related to subsistence or fish and wildlife management shall present an analysis of impacts on fishery resources and caribou migration and habitat to the NANA CRSA Board.

MM Lower Buckland River Special Use Area

MM-1 Subsistence

Uses and activities not related to subsistence shall not adversely impact the following activities:

- waterfowl hunting (spring/fall)
- seal hunting (summer months)
- moose hunting (September-October)

MM-4 Alternative Sites

To the extent feasible and prudent, entities proposing uses and activities not related to subsistence and wildlife management shall locate such activities at alternative sites outside the area.

NN North Fork Squirrel River/Omar River Special Use Area

NN-1 Subsistence

Uses and activities not related to subsistence shall not adversely impact the following activities:

- fall caribou hunting (mid-August to mid-October)
- salmon and char fishing (July-September)
- waterfowl hunting (September-October)
- furbearer trapping

NN-4 Alternative Sites

To the extent feasible and prudent, entities proposing uses and activities not related to subsistence and wildlife management shall locate such activities at alternative sites outside the area.

OO North Kivalina Coast Special Use Area

OO-1 Subsistence

Non-subsistence uses and activities shall not adversely impact the following subsistence activities:

- marine mammal hunting (March 15-July 15)
- waterfowl hunting (spring/fall)

OO-3 Alternative Sites

To the extent feasible and prudent, entities proposing uses and activities not related to subsistence and wildlife management shall locate such activities at alternative sites outside the area.

NEW RESTRICTED/SENSITIVE USE AREAS

AAA Onion Portage

AAA-2 Priority Uses

Subsistence activities, cultural resource management, and

fish and wildlife management are priority uses.

AAA-4 Fishing

Uses and activities not related to subsistence shall not interfere with subsistence fishing and fish migration during June through October.

BBB Elephant Point/Choris Peninsula

BBB-2 Priority Uses

Subsistence activities, cultural resource management, and fish and wildlife management are priority uses.

BBB-3 Marine Mammals

Uses and activities not related to subsistence shall not adversely impact marine mammals or related subsistence activities during beluga whale hunting in June and July.

CCC Kobuk River Sheefish/Whitefish Spawning and Use Area

CCC-2 Priority Use

Subsistence activities, fish spawning, fish migration and fish and wildlife management are priority uses.

DDD Selawik River Sheefish/Whitefish Spawning Area

DDD-2 Priority Use

Subsistence activities, fish spawning, fish migration and fish and wildlife management are priority uses.

EEE Wulik River Arctic Char Overwintering and Spawning Area

EEE-2 Priority Use

Subsistence activities, fish spawning and overwintering, and fish and wildlife management are priority activities.

FFF Noatak River Chum Salmon Spawning Area

FFF-2 Priority Use

Subsistence activities, fish overwintering/spawning/ migration, and fish and wildlife management are priority uses.

GGG Eschscholtz Bay

GGG-2 Priority Use

Subsistence activities, cultural resource management, and fish and wildlife management are priority uses.

HHH Upper Kivalina River

HHH-2 Priority Use

Subsistence activities, fish spawning and overwintering, and fish and wildlife management are priority activities.

Finding: Policy A-5 should provide guidelines or criteria that outline what type of alternate access would be "acceptable to subsistence users".

Recommend changes to policies AA-6, BB-6, CC-4, DD-4, EE-6, FF-6, HH-5, II-6 and JJ-6 clarify that "adverse" impacts to commercial and subsistence uses are to be avoided or minimized.

Revisions to policies AA-7, BB-7, CC-5, DD-5, EE-7, FF-7, are recommended to improve their clarity.

The new policies replace the existing State standard, 6 AAC 80.120.

Conclusion: With the recommended changes, the policies would be consistent with the ACMP.

6 AAC 80.130. HABITATS

(a) Habitats in the coastal area which are subject to the Alaska Coastal Management Program include

(1) offshore areas; (2) estuaries; (3) wetlands and tideflats; (4) rocky islands and seacliffs; (5) barrier islands and lagoons; (6) exposed high energy coasts; (7) rivers, streams, and lakes; and (8) important upland habitat.

(b) The habitats contained in (a) of this section must be managed so as to maintain or enhance the biological, physical, and chemical characteristics of the habitat which contribute to its capacity to support living resources.

(c) In addition to the standards contained in (b) of this section, the following standards apply to the management of the following habitats:

(1) offshore areas must be managed as a fisheries conservation zone so as to maintain or enhance the state's sport, commercial, and subsistence fishery;

(2) estuaries must be managed so as to assure adequate water flow, natural circulation patterns, nutrients, and oxygen levels, and avoid the discharge of toxic wastes, silt, and destruction of productive habitat;

(3) wetlands and tideflats must be managed so as to assure adequate water flow, nutrients, and oxygen levels and avoid adverse effects on natural drainage patterns, the destruction of important habitat, and the discharge of toxic substances;

(4) rocky islands and seacliffs must be managed so as to avoid the harassment of wildlife, destruction of important habitat, and the introduction of competing or destructive species and predators;

(5) barrier islands and lagoons must be managed so as to maintain adequate flows of sediments, detritus, and water, avoid the alteration or redirection of wave energy which would lead to the filling in of lagoons or the erosion of barrier islands, and discourage activities which would decrease the use of barrier islands by coastal species, including polar bears and nesting birds;

(6) high energy coasts must be managed by assuring the adequate mix and transport of sediments and nutrients and avoiding redirection of transport processes and wave energy; and

(7) rivers, streams, and lakes must be managed to protect natural vegetation, water quality, important fish or wildlife habitat and natural water flow.

(d) Uses and activities in the coastal area which will not conform to the standards contained in (b) and (c) of this section may be allowed by the district or appropriate state agency if the following are established:

(1) there is a significant public need for the proposed use or activity;

(2) there is no feasible prudent alternative to meet the public need for the proposed use or activity which would conform to the standards contained in (b) and (c) of this section; and

(3) all feasible and prudent steps to maximize conformance with the standards contained in (b) and (c) of this section will be taken.

(e) In applying this section, districts and state agencies may use appropriate expertise, including regional programs referred to in sec. 30(b) of this chapter.

NEW GENERAL USE AREA POLICIES:

C-1 Uses and activities that do not conform with the following habitat and biological policies shall be allowed if 1) there is a significant public need for the activity, 2) there are no feasible and prudent alternatives, and 3) all feasible and prudent steps to maximize conformance have been taken.

C-3 Habitat Maintenance

All habitats shall be managed so as to maintain or enhance the biological, chemical and physical characteristics of the habitat which contribute to its capacity to support living resources.

C-4 Offshore Areas

Offshore areas shall be managed to maintain or enhance commercial and subsistence fisheries, and marine mammal subsistence harvesting.

C-5 Estuaries

Estuaries shall be managed so as to assure adequate water flow, natural circulation patterns, nutrients, and oxygen levels, and avoid the discharge of toxic wastes, silt, and destruction of important habitat. These areas shall be managed to maintain or enhance commercial and subsistence fisheries, and marine mammal subsistence harvests.

C-6 Wetlands and Tideflats

Wetlands and tideflats shall be managed so as to assure adequate water flow, nutrients, and oxygen levels and avoid adverse changes in natural drainage patterns, the destruction of important habitat, and the discharge of toxic substances.

C-7 Rocky Islands and Seacliffs

Rocky islands and seacliffs shall be managed so as to avoid the harassment of wildlife, and destruction of important habitat, and the introduction of competing or destructive species or predators.

C-8 Barrier Islands and Lagoons

Islands and lagoons shall be managed so as to maintain adequate flows of sediments, detritus, and water, avoid the alteration or redirection of wave energy which would lead to the filling in of lagoons or the erosion of islands, and discourage activities which would decrease the use of islands by coastal species, including

polar bears and nesting birds.

C-9 High Energy Coasts

High energy coasts shall be managed by assuring the adequate mix and transport of sediments and nutrients and avoiding redirection of transport processes and wave energy.

C-10 Rivers, Lakes and Streams

Rivers, streams, and lakes shall be managed to protect natural vegetation, water quality, important habitat and natural water channels and flows required to protect fish and wildlife habitat.

C-11 Upland Habitats

Important habitats in upland areas shall be managed to maintain natural drainage patterns, [PREVENT EXCESSIVE RUNOFF AND EROSION,] surface water quality, and natural ground-water recharge areas, and prevent excessive runoff and erosion and alteration of vegetation which may result in decreased biological productivity.

NEW SPECIAL USE AREA POLICIES:

AA Sisoalik Spit Special Use Area

AA-2 Marine Mammals

Offshore activities and uses, not related to subsistence, in the vicinity of Sisaolik Spit shall minimize impacts on marine mammals. During April, May, June, September, and October, resource exploration and extraction activities are prohibited.

BB Cape Krusenstern Special Use Area

BB-2 Marine Mammals

Activities and uses, not related to subsistence, in the waters offshore of Cape Krusenstern shall be conducted to minimize impacts on marine mammals. During March 15 through July 15 and September and October, resource exploration and extraction activities are prohibited when marine mammals are present.

BB-4 Tern Nesting Sites

Activities and uses not related to subsistence and to cultural resource studies shall minimize disturbance to tern nesting areas identified on Map 6 [IN THE RESOURCE ANALYSIS.]

CC Kobuk/Selawik Lakes Special Use Area

CC-2 Fish

Industrial and commercial activities and uses requiring water intake or discharge of effluent shall be sited, designed, and operated to minimize impacts to larval and juvenile fish. Offshore activities and uses shall be sited, designed, and operated to minimize impacts on anadromous fish migration and overwintering fish populations.

DD Cape Espenberg/Goodhope River Special Use Area

DD-2 Seal Haulout Areas

Offshore and onshore resource exploration and extraction activities shall maintain a one mile buffer from identified seal haulout areas (Map 7) when seals are present.

EE Kobuk River Delta Special Use Area

EE-2 Waterfowl Nesting

Resource exploration and extraction activities shall be sited and scheduled to avoid waterfowl staging (spring/fall) and nesting periods (summer).

EE-3 Fish

Industrial and commercial uses and activities requiring water intake, effluent discharge or habitat alteration shall be sited, designed and operated to minimize impact on juvenile fish.

FF Selawik River Delta Special Use Area

FF-2 Waterfowl Nesting

Resource exploration and extraction activities must be sited and scheduled to avoid waterfowl staging (spring/fall) and nesting periods (summer).

FF-3 Fish

Industrial and commercial uses and activities requiring water intake or effluent discharge must be designed and operated to minimize impact on juvenile fish.

GG Salmon River Special Use Area

GG-2 Caribou Migration

Uses and activities not related to subsistence shall be required to cease operations during the initial phase of caribou migration, if impacts to migration will occur.

GG-3 Fish Spawning

Gravel extraction, placer mining, and placement of in-stream structures will be prohibited within identified spawning areas (Maps 5 and 6).

GG-6 Minimize Impacts

Uses and activities shall be sited, scheduled, and operated to avoid or minimize adverse impact to caribou migration.

GG-7 Mitigation

Entities proposing uses and activities shall incorporate [DESCRIBE] mitigation measures into their projects to adequately protect caribou migration. These measures shall be described in project applications.

HH Selawik/Hunt/Redstone Rivers Caribou Migration Corridor Special Use Area

HH-2 Caribou Migration

Uses and activities not related to subsistence shall be required to cease operations during the initial phase of caribou migration, if impacts to migration will occur.

HH-6 Mitigation

Entities proposing uses and activities shall incorporate [DESCRIBE] mitigation measures into their projects to adequately protect caribou migration. These measures shall be described in project applications.

II Maniilaq River/Ambler Lowlands Special Use Area

II-2 Caribou Migration

Resource exploration, extraction, and transportation activities shall be required to cease operation during the initial phase of caribou migration, if impacts to migration will occur.

II-7 Mitigation

Entities proposing uses and activities shall incorporate [DESCRIBE] mitigation measures into their projects to adequately protect caribou migration, waterfowl nesting, and fish resources. These measures shall be described in project applications.

JJ Pah River Trapping Special Use Area

JJ-2 Caribou Migration

Resource exploration, extraction, and transportation activities shall be required to cease operation during the initial phase of caribou migration, if impacts to migration will occur.

JJ-7 Mitigation

Entities proposing uses and activities shall incorporate [DESCRIBE] mitigation measures into their projects to adequately protect caribou migration, waterfowl nesting, and fish resources. These measures shall be described in project applications.

KK Red Dog Transportation Corridor Special Use Area

KK-1 Caribou Monitoring

A caribou monitoring program shall be designed and conducted to provide advanced notice of caribou migrations approaching the road corridor. Restrictions on road construction and use shall be imposed if adverse impacts are expected.

KK-3 Fish

Entities proposing uses and activities shall ensure protection of anadromous and resident fish.

KK-4 Cultural Resources

[NATURAL] National Park Service shall have access to examine cultural resource sites. Sites and artifacts discovered shall be protected by landowners.

LL Inmachuk River Special Use Area

LL-2 Waterfowl

Resource exploration and extraction activities shall be sited, scheduled, and operated to avoid impacts on waterfowl staging (spring/fall) and nesting areas(summer).

LL-3 Fish Spawning

Gravel extraction, placer mining, and placement of in-stream structures shall be prohibited within identified spawning areas.

LL-6 Minimize Impacts

Uses and activities shall be sited, scheduled, and operated to avoid or minimize adverse impact to caribou migration.

LL-7 Mitigation

Entities proposing uses and activities shall incorporate [DESCRIBE] mitigation measures into their projects to adequately protect caribou migration. These measures shall be described in project applications.

MM Lower Buckland River Special Use Area

MM-2 Waterfowl

Prior to gravel extraction, placer mining, and placement of in-stream structures, the proposed area shall be surveyed for salmon spawning areas. These activities shall be prohibited in such areas.

MM-3 Salmon Spawning

Prior to gravel extraction, placer mining, and placement of in-stream structures, the proposed area shall be surveyed for salmon spawning areas. These activities shall be prohibited in such areas.

MM-5 Impact Analysis

Entities proposing uses and activities within the area not related to subsistence or fish and wildlife management shall present an analysis of impacts on fishery resources and caribou migration and habitat to the NANA CRSA Board.

MM-6 Minimize Impacts

Uses and activities shall be sited, scheduled, and operated to avoid or minimize adverse impact to caribou migration.

MM-7 Mitigation

Entities proposing uses and activities shall incorporate [DESCRIBE] mitigation measures into their projects to adequately protect caribou migration. These measures shall be described in project applications.

NN North Fork Squirrel River/Omar River Special Use Area

NN-2 Caribou Migration

Uses and activities not related to subsistence shall be required to cease operations during the initial phase of caribou migration, if impacts to migration will occur.

NN-3 Fish Spawning

Gravel extraction, placer mining and placement of in-stream structures shall be prohibited in identified spawning areas.

NN-5 Impact Analysis

Entities proposing uses and activities within the area not related to subsistence or fish and wildlife management shall present an analysis of impacts on fishery resources and caribou migration and habitat to the NANA CRSA Board.

NN-6 Minimize Impacts

Uses and activities shall be sited, scheduled, and operated to avoid or minimize adverse impact to caribou migration.

NN-7 Mitigation

Entities proposing uses and activities shall incorporate [DESCRIBE] mitigation measures into their projects to adequately protect caribou migration. These measures shall be described in project applications.

OO North Kivalina Coast Special Use Area

OO-2 Marine Mammals

Activities and uses, not related to subsistence, in the waters offshore Kivalina shall be conducted to minimize impacts on marine mammals. Between March 15 and July 15 and September 1 through October 31, resource exploration and extraction activities are prohibited when marine mammals are present.

OO-4 Impact Analysis

Entities proposing uses and activities within the area not related to subsistence or fish and wildlife management shall present an analysis of impacts on fishery resources and caribou migration and habitat to the NANA CRSA Board.

OO-5 Minimize Impacts

Uses and activities shall be located and scheduled to avoid or minimize adverse impact on caribou migration.

OO-6 Mitigation

Entities proposing uses and activities shall incorporate [DESCRIBE] mitigation measures into their projects to adequately protect caribou migration. These measures shall be described in project applications.

NEW RESTRICTED/SENSITIVE USE POLICIES:

AAA Onion Portage

AAA-1 Prohibited Uses

Major resource exploration/development, commercial uses, transportation development and gravel extraction activities and uses are prohibited.

AAA-3 Caribou Migration

Uses and activities not related to subsistence, including river floating, shall be required to cease operation during the initial phase of caribou migration, if impacts to migration will occur.

BBB Elephant Point/Choris Peninsula

BBB-1 Prohibited Uses

Major resources exploration/extraction, transportation development (except ice roads for approved development projects), commercial development and gravel extraction activities and uses are prohibited.

CCC Kobuk River Sheefish/Whitefish Spawning and Use Area

CCC-5 Maintain Flows

Activities occurring upstream of this area shall maintain summer and winter flow of water necessary for fish and wildlife and habitat, and not cause downstream erosion.

EEE Wulik River Arctic Char Overwintering and Spawning Area

EEE-3 Maintain Flows

Activities requiring water withdrawal during summer months shall maintain flows necessary to support fish and wildlife and their habitat. Activities occurring upstream of this area shall maintain summer and winter flow of water adequate to support fish and wildlife and their habitat and not cause downstream erosion.

GGG Eschscholtz Bay

GGG-1 Prohibited Uses

Major resource exploration/extraction, transportation development (except for ice roads for approved development projects), commercial development and gravel extraction activities and uses are prohibited.

Finding: A revision to policy C-7 is recommended to make it comport with the language of existing standard 6 AAC 80.130.

Changes to the following policies are recommended for clarity: BB-4, GG-7, HH-6, II-7, JJ-7, KK-4, LL-7, MM-7, NN-7 and OO-6.

Changes to the following policies are recommended to clarify that "adverse" impacts are to be avoided or minimized: GG-6, LL-6, MM-6, NN-6 and OO-5.

Policy KK-1 should more clearly outline the requirement for the caribou monitoring study, including who will be expected to conduct the study. Criteria for road construction and use restrictions should also be provided.

Policy KK-3 is vague. Additional guidance for how to comply with the policy is needed.

Policies CCC-5 and EEE-5 should be revised to recognize the authority of the Department of Natural Resources in water appropriations (AS 46.15), and the consultative roles of the Departments of Fish and Game and Environmental Conservation (as outlined in an interagency cooperative agreement entered into on June 21, 1979) and the CRSA board.

The new policies incorporate and supplement the existing State standard, 6 AAC 80.130, which remains in effect.

Conclusion: With the recommended revisions, the policies would be consistent with the ACMP.

6 AAC 80.140. AIR, LAND, AND WATER QUALITY

Notwithstanding any other provision of this chapter, the statutes pertaining to and the regulations and procedures of the Alaska Department of Environmental Conservation with respect to the protection of air, land, and water quality are incorporated into the Alaska coastal management program and, as administered by that agency, constitute the components of the coastal management program with respect to those purposes.

NEW GENERAL USE AREA POLICIES:

E-1 State and Federal Regulations

The statutes pertaining to and the regulations and procedures of the Alaska Department of Environmental Conservation with respect to the protection of air, land, and water quality are incorporated into the NANA Coastal Management Program and, as administered by that agency, constitute the components of the coastal management program with respect to those purposes.

E-2 Cumulative Impact

Entities proposing new industrial developments shall provide appropriate information to the Coastal Coordinator and other entities reviewing the project on their cumulative impact on district air and water quality. [THIS INFORMATION WILL BE CONSIDERED BY THE BOARD PRIOR TO CONSISTENCY RECOMMENDATIONS FOR THE PROJECT.]

E-3 Environmental Protection [BEST AVAILABLE] Technology

To the extent feasible and prudent, [EQUIPMENT AND ACTIVITIES SHALL UTILIZE] the best available and effective technology shall be utilized to minimize emissions and effluents, and to facilitate handling, cleanup, and disposal of oil and hazardous materials.

E-4 Wastewater Discharge

The discharge of industrial and commercial wastewater into coastal waters of the NANA CRSA District shall be limited to areas with enough flushing action to avoid adverse impacts on fish and wildlife. Discharge shall not be in amounts adversely impacting marine mammals, waterfowl, and fish populations.

E-6 Refuse Disposals

To the extent feasible and prudent, refuse disposals in upland sites shall be designed, sited, and maintained so as to avoid the destruction of important habitats, [AND] pollution of surrounding areas and attraction of wildlife.

E-7 Hazardous or Toxic Wastes

The disposal and storage of hazardous or toxic wastes shall comply with the Alaska Department of Environmental Conservation regulations and shall be subject to cooperative planning with the NANA CRSA Board, affected communities, NANA, KIC, and other appropriate landowners, as outlined in Section 7.7 of the Implementation Chapter.

E-8 Erosion and Siltation

To the extent feasible and prudent, soil erosion shall be minimized by restricting the removal of vegetation adjacent to water bodies and by stabilizing and revegetating disturbed soil as soon as possible.

NEW RESTRICTED/SENSITIVE AREA POLICIES:

CCC Kobuk River Sheefish/Whitefish Spawning and Use Area

CCC-3 Wastewater Discharge

Industrial, and large scale commercial wastewater discharge must provide treatment to maintain water quality conditions and shall minimize adverse impact to fish and wildlife resources.

Small scale commercial wastewater discharge shall take steps to maintain water quality and minimize impacts on fish and wildlife resources.

CCC-4 Buffer Zone

Outside villages, commercial and industrial construction activities [OUTSIDE VILLAGES], within 25 feet of the river are prohibited, and within 500 feet of the river these activities must prevent on-site erosion and increased [INCREASING] sediment discharge [LOADING] into the river.

DDD Selawik River Sheefish/Whitefish Spawning and Use Area

DDD-3 Wastewater Discharge

Industrial, and large scale commercial wastewater discharge shall provide treatment to maintain water quality conditions and must minimize impact to fish and wildlife resources. Small scale commercial wastewater discharge shall take steps to maintain water quality and minimize adverse impacts on fish and wildlife resources.

DDD-4 Buffer Zone

Industrial, commercial, and subdivision construction activities outside villages within 25 feet of the river are prohibited; within 500 feet of the river these activities shall prevent on-site erosion and increased [INCREASING] sediment discharge [LOADING] into the river.

EEE Wulik River Arctic Char Overwintering and Spawning Area

EEE-4 Wastewater Discharges

Industrial, and large scale commercial wastewater discharge shall provide treatment to maintain water quality conditions and must minimize adverse impact to fish and wildlife resources. Small scale commercial wastewater discharge shall take steps to maintain water quality and minimize adverse impacts on fish and wildlife resources.

FFF Noatak River Chum Salmon Spawning Area

FFF-3 Wastewater Discharge

Industrial, and large scale commercial wastewater discharge shall provide treatment to maintain water quality conditions and shall minimize impact to fish and wildlife resources. Small scale commercial wastewater discharge shall take steps to maintain water quality and minimize adverse impacts on fish and wildlife resources.

FFF-4 Buffer Zone

Industrial, commercial, and subdivision construction activities within 25 feet of the river are prohibited; within 500 feet of the river these activities shall prevent on-site erosion and increased [INCREASING] sediment discharge [LOADING] into the river.

HHH Upper Kivalina River

HHH-3 Maintain Flows

Activities requiring water withdrawal during summer months shall maintain flows necessary to support fish and wildlife and their habitat. Activities occurring upstream of this area shall maintain summer and winter flow of water adequate to support fish and wildlife and their habitat and not cause downstream erosion.

HHH-4 Wastewater Discharges

Industrial, and large scale commercial wastewater discharge shall provide treatment to maintain water quality conditions and shall minimize impact to fish and wildlife resources. Small scale commercial wastewater discharge shall take steps to maintain water quality and minimize adverse impacts on fish and wildlife resources.

Finding: Policy E-2 should be revised as recommended.

Revisions to the following policies are recommended for clarity: E-3, E-6, CCC-4, DDD-4 and FFF-4.

A revision to policy E-7 is recommended to make it more comprehensive, as is required under 6 AAC 85.090.

The policies incorporate and supplement the existing standard, 6 AAC 80.140, which remains in effect.

Conclusion: With the recommended revisions, the policies would be consistent with the ACMP.

6 AAC 80.150. HISTORIC, PREHISTORIC, AND ARCHAEOLOGICAL RESOURCES

Districts and appropriate state agencies shall identify areas of the coast which are important to the study, understanding, or illustration of national, state, or local history or prehistory.

NEW GENERAL USE AREA POLICIES:

D-2 Resource Protection

Archaeological, prehistoric and historic resources shall be protected to the extent feasible and prudent from adverse impacts caused by surrounding uses and activities.

D-3 Data Requirements

Prior to any major archaeological project within the district, adequate information shall be provided to the NANA CRSA Board concerning:

- purpose of the project;
- proposed site area;
- timing of operation;
- project impact, if any, of the operation.

D-4 Local Notification

The NANA CRSA Board affected communities and landowners and other appropriate parties shall be notified before any excavation or archaeological related work commences on lands around their respective villages.

NEW SPECIAL USE AREA POLICIES:

AA Sisoalik Spit Special Use Area

AA-3 Cultural Resources

Prior to construction, developers proposing commercial and industrial uses and activities involving surface disturbance and excavation shall provide adequate information to the NANA CRSA Board regarding proposed site area and timing of operation, in order to protect cultural resources, as outlined in Section 7.10 of the Implementation Chapter.

BB Cape Krusenstern Special Use Area

BB-3 Cultural Resources

Prior to industrial and commercial construction, entities proposing uses and activities requiring surface disturbance and excavation shall coordinate with the NANA CRSA Board, National Park Service, and other affected land owners as outlined in Section 7.7 of the Implementation Chapter. Information shall be provided on the proposed site area, timing of construction, and measures being used to protect the resources, as outlined in Chapter 7.10.

[Note: Additional policies relating to cultural resources include BB-4 (p. 27), BB-5 (p. 15), BB-6 (p. 15), BB-7 (p. 16), KK-4 (p. 30), AAA-2 (p. 22), BBB-2 (p. 23) and GGG-2 (p. 23).]

Finding: The data requirements of policy D-3 should clarify what types of "project impact" need be evaluated.

The new policies replace the existing State standard, 6 AAC 80.150.

Conclusion: With the recommended revision, the policies would be consistent with the ACMP.

6 AAC 80.160 AREAS WHICH MERIT SPECIAL ATTENTION

(a) Any person may recommend to a district or to the Council areas to be designated as areas which merit special attention (AMSA).

[Note: The full text of this standard is not reprinted here.]

Finding: The conceptually approved NANA program does not propose any AMSAs for designation at this time. However, AMSAs are being nominated for future planning and designation in the following areas:

1. City of Kotzebue
2. Eschscholtz Bay
3. Ambler/Bormite

NEW POLICIES NOT DIRECTLY RELATED TO ANY INDIVIDUAL STANDARD OF THE ACMP:

Trapping:

B-1 Planning Processes

Issuance of trapping cabin permits in the Pah River, Squirrel River, and Agashashak River watersheds shall be subject to the procedures referenced in Chapter 7.7 under land disposals.

B-2 Mitigation

Uses and activities not related to trapping shall minimize and mitigate impacts to trapping activities and resources.

B-3 Non-Trapping Uses

Residential and non-trapping commercial uses of trapping cabins shall be prohibited.

Access:

N-3 Coordination

Plans to develop access points and easement routes on State and federal lands shall be coordinated with the CRSA Board, NANA, KIC, affected local governments, and adjacent land owners, using the planning processes outlined in Section 7.7 of the Implementation Chapter.

KK Red Dog Transportation Corridor Special Use Area

KK-2 Access

Access shall be provided for National Park Service research and management activities on monument lands.

Land Disposals:

H-1 Planning Requirements (Sivunniuq)

The State government must work with the CRSA Board, affected landowners, and affected local governments in planning process outlined in Chapter 7.7 for all land disposals (including homesteading settlement, subdivision, and agricultural and coordination with shareholder homesite programs and other private land disposal programs). Federal land disposals are subject to the same requirements.

Conclusion: The policies are consistent with the ACMP.

NEW ADMINISTRATIVE POLICIES:

The following policies are not enforceable, but have been proposed by NANA CRSA as administrative policies.

A-2 Land Use Area Designation

Especially sensitive areas of significant subsistence resource use may be proposed by the CRSA Board as Special Use or Restricted/Sensitive Areas (Administrative Policy), subject to approval by the Coastal Policy Council.

A-3 Local Concerns

The CRSA Board shall work with communities affected by proposed activities to identify subsistence resource concerns and to develop appropriate stipulations (Administrative Policy).

C-2 Land Use Area Designation

Areas of important habitat and use may be proposed as Special Use Area or Restricted/Sensitive Use Area by the CRSA Board (Administrative Policy), subject to approval by the Coastal Policy Council.

D-1 Land Use Area Designation

Areas of unusually concentrated or culturally important archaeological, prehistoric and historical resources may be proposed by the CRSA Board as Special Use or Restricted/Sensitive Areas (Administrative Policy), subject to approval by the Coastal Policy Council.

E-5 Siting

The CRSA Board shall work with developers of proposed industrial facilities to evaluate emission and effluent dispersion, and assist in siting industrial facilities (Administrative Policy).

I-1 Land Use Area Designation

New transportation corridors or facilities that are not related to community service may be proposed as Special Use Areas by the CRSA Board (Administrative Policy), subject to approval by the Coastal Policy Council.

J-1 Land Use Area Designation

Major energy facilities not related to community energy supply may be proposed as Special Use Areas by the CRSA Board (Administrative Policy), subject to approval by the Coastal Policy Council.

K-1 Land Use Area Designation

Areas of major mining (including placer mining) and mineral processing activities may be proposed by the CRSA Board as a Special Use Area by the CRSA Board (Administrative Policy), subject to approval by the Coastal Policy Council.

M-1 Land Use Area Designation

Areas which receive use for recreation pursuits or as a major tourist destination may be proposed as a special use area (Administrative Policy), subject to approval by the Coastal Policy Council.

PART TWO: DISTRICT PROGRAM GUIDELINES

6 AAC 85.020. NEEDS, OBJECTIVES, AND GOALS

Each district program must include a statement of the district's overall coastal management needs, objectives, or goals, or the district's comprehensive land and resource use plan.

Finding: Chapter 4 of the NANA program document (Volume 1) states the issues, goals, and objectives for the region. Major issues include mining, oil and gas development, subsistence, transportation, governance and tourism. Program goals include local participation in resource decisions, maintenance of the subsistence way of life, support for appropriate economic development and maintenance of environmental standards.

Conclusion: The requirement has been met.

6 AAC 85.030. ORGANIZATION

(a) Each district program must include a description of the district program organization for coastal management. Budgetary and staff needs and, where appropriate, a schedule for necessary reorganization must be included.

(b) The district program must clearly state the name and address of the individual or organization within the district that is assigned to receive from the State notice of proposed activities and authorizations affecting the district, and that is responsible for responding to the State on consistency reviews.

Finding: The NANA program describes the implementation process and the role of the board, staff, and affected villages at pp. 7-19 through 7-22. The title and address of the local contact for consistency reviews is Mr. David Weingartner, Coastal Program Coordinator, Maniilaq Association, P.O. Box 256, Kotzebue, Alaska 99752.

Conclusion: The requirement has been met.

6 AAC 85.040. BOUNDARIES

(a) Each district must include a map of the boundaries of the coastal area within the district subject to the district program. Boundaries must enclose those lands which would reasonably be included in the coastal area and subject to the district program if they were not subject to the exclusive jurisdiction of the federal government.

(b) Before council approval of the district program, initial boundaries must be based on Biophysical Boundaries of Alaska's Coastal Zone (published by the Office of Coastal Management and the Alaska Department of Fish and Game, 1978, a copy of which is on file with the Office of the Lieutenant Governor, and which is available from the Office of Coastal Management) and must include the zone of direct interaction and the zone of direct influence.

(c) Final boundaries of the coastal area subject to the district program may diverge from the initial boundaries if the final boundaries

(1) extend inland and seaward to the extent necessary to manage uses and activities that have or are likely to have a direct and significant impact on marine coastal water; and

(2) include all transitional and intertidal areas, salt marshes, saltwater wetlands, islands, and beaches.

(d) If the criteria in (c) of this section are met, final boundaries of the coastal area subject to the district program may be based on political jurisdiction, cultural features, planning areas, watersheds, topographic features, uniform setbacks, or the dependency of uses and activities on water access.

Finding: Chapter 2 of the program document describes the coastal boundary. The proposed boundary is shown on Map 1. The program proposes to include the following areas within its coastal boundary:

1. The interim coastal boundary designated by the State.

2. The watersheds of the major drainage systems which provide important spawning, rearing and overwintering habitats for significant populations of anadromous fish within the region (Maps 3 and 4). These include the watersheds of the Kivalina, Wulik, Noatak, Kobuk, and Selawik Rivers and the Kotzebue Sound drainages of the northern Seward Peninsula, including the Buckland, Kiwalik, Kugruk, Inmachuk and Goodhope Rivers.

Item 2 is proposed for addition to the coastal zone. The addition of this area is intended to ensure that activities that have or are likely to have direct and significant impacts on anadromous fish would be subject to consistency review. The importance of maintaining anadromous fish resources for their subsistence and commercial value is highlighted.

Conclusion: The Council's staff review of the boundary will continue

during the public review of this document and the conceptually approved NANA plan. A recommendation to the CPC will be provided in the revised findings and conclusions.

(e) The boundaries of the district must be sufficiently compatible with those of adjoining areas to allow consistent administration of the Alaska coastal management program.

Finding: The NANA district adjoins the North Slope Borough to the north, and the Bering Straits CRSA to the south.

Conclusion: The proposed NANA boundary includes the drainages of the Kivalina and Wulik rivers. The upper most areas of these drainages are within the North Slope Borough, who chose not to include them within their coastal boundary. It is NANA's position that these areas should have been included in the coastal zone. DGC will continue to work with the districts involved to ensure that boundaries are approved in manner which does not hinder implementation of the ACMP.

The proposed NANA boundary is compatible with the boundary under consideration for the Bering Straits CRSA.

6 AAC 85.050. RESOURCE INVENTORY

Each district program must include a resource inventory which describes, in a manner sufficient for program development and implementation

(1) habitats listed in 6 AAC 80.130 that are found within or adjacent to the district;

Finding: Habitats are described in detail in Chapter C of the background report (Volume 2) and mapped in Map 2. Fish and wildlife resources are mapped at Maps 3-6.

Conclusion: The requirement has been met.

(2) major cultural resources that are found within or adjacent to the district;

Finding: Cultural resources, including the communities of the region, are described in Chapter A (Parts A-3 and A-4) of the background report (Volume 2).

Conclusion: The requirement has been met.

(3) major land and water uses and activities which are conducted within or adjacent to the district;

Finding: Major land and water uses, including subsistence, commercial fishing, other economic activities, employment, transportation, energy and utilities and land use are described in Chapter A of the background report (Volume 2).

Conclusion: The requirement has been met.

(4) major land and resource ownership and management responsibilities within or adjacent to the district;

Finding: Land ownership, use and management is described at pp. 64-70 of the resource inventory. Federal, State, native and private holdings are described. Map 7 depicts land ownership and pending selections.

Conclusion: The requirement has been met.

(5) major historic, prehistoric, and archaeological resources which are found within or adjacent to the district.

Finding: The prehistory and history of the region are described at Chapter A (Part A-1) of the background report (Volume 2). Historic and archaeological sites are mapped at Map 10.

Conclusion: The requirement has been met.

6 AAC 85.060. RESOURCE ANALYSIS

Each district program must include a resource analysis which describes, in a manner sufficient for program development and implementation

(1) significant anticipated changes in the matters identified under 6 AAC 85.050 of this chapter;

(2) an evaluation of the environmental capability and sensitivity of resources and habitats, including cultural resources, for land and water uses and activities; and

(3) an assessment of the present and anticipated needs and demands for coastal habitats and resources.

Finding: The resource analysis is presented along with inventory information in the background report, and is summarized in Chapter 3 of the program document (Volume 1).

Conclusion: The requirement has been met.

6 AAC 85.070. SUBJECT USES

Each district program must include a description of the land and water uses and activities which are subject to the district program. The uses and activities mentioned in 6 AAC 80 of this title are, if applicable, subject to the district program.

Finding: Subject uses are described at p. 5-4 of the program document (Volume 1).

Conclusion: The requirement has been met.

6 AAC 85.080. PROPER AND IMPROPER USES

Each district program must include a description of the uses and activities, including uses of State concern, that will be considered proper, and the uses and activities, including uses of State concern, that will be considered improper within the coastal area, including land and water use designations. This description must be based on the district's statement of overall needs, objectives, or goals, or the district's comprehensive land and resource use plan, under 6 AAC 85.020, and must be consistent with the standards contained in 6 AAC 80 of this title.

Finding: Proper and improper uses are described at p. 5-4 of the program document (Volume 1). Uses that are consistent with the applicable policies of the program are considered proper. Specific improper uses are identified for some of the restricted/sensitive use areas in the policies for those areas.

Conclusion: The requirement has been met.

6 AAC 85.090. POLICIES

(a) Each district program must include the policies that will be applied to land and water uses and activities subject to the district program, and the process which will be used to determine whether specific land and water uses and activities will be allowed. It shall be the general policy of the district to approve specific proposals for uses and activities within areas designated for those uses and activities under 6 AAC 85.080. Districts shall use existing means appropriate for the evaluation of specific proposals to the greatest extent feasible and prudent. Policies and procedures under this section must be consistent with the standards contained in 6 AAC 80 and must meet the following criteria:

(1) comprehensive, so as to apply to all uses, activities, and areas in need of management;

(2) specificity, so as to allow clear understanding of who will

be affected, and whether specific proposals for land and water uses and activities will be allowed; and

(3) enforceability, so as to insure implementation of and adherence to the district program.

(b) All policies or enforceable rules of the district program must be clearly identified and located in a single section of the program document. The identified policies or enforceable rules will provide the basis for all determinations of consistency with the approved district program.

Finding: The policies or enforceable rules of the program are presented in Chapter 6 of the program document (Volume 1). They are clearly identified and located in a single section. The policies are evaluated in detail in the findings and conclusions for 6 AAC 80.

Conclusion: Except as noted in the findings and conclusions for 6 AAC 80, the requirement has been met.

6 AAC 85.100. IMPLEMENTATION

Each district program must include a description of the methods and authority which will be used to implement the district program. Methods and authority must be adequate to insure program implementation, and any additional methods or authority which are required must be specified. Methods and authority include land and water use plans, municipal ordinances and resolutions, (including shoreline, zoning, and subdivision ordinances and building codes), State and federal statutes and regulations, capital improvement programs, the purchase, sale, lease, or exchange of coastal land and water resources, cooperative agreements, tax exemptions for nondevelopment purchase of development right, memoranda of understanding, and coordinated project or permit review procedures.

Finding: Chapter 7 of the district program (Volume 1) describes the way in which the program will be implemented. The district's role in State and federal consistency determinations and the local review process are described. The local clearinghouse functions performed by the board are outlined. The role of the City of Kotzebue in implementing the program for activities that require only a local approval are also outlined.

The NANA CRSA is proposing three changes to the "Classification of State Agency Approvals under 6 AAC 50" prepared by DGC under 6 AAC 50.050(e). This classification is the list of which State agency permits are considered categorically consistent with the ACMP (the "A list"), which permits have standard stipulations that ensure consistency (the "B list") and which permits require a case-by-case review for consistency with the

ACMP (the "C list"). Only "C list" permits trigger a full consistency review. NANA proposes (pp. 7-8 and 7-9) that three resource agency permits, which are now considered categorically consistent with the ACMP, be moved to the "C list" and reviewed on a case-by-case basis for consistency with the approved NANA district program. These authorizations include trapping cabin construction permits, timber sales greater than 40 acres in size, and permits for investigation or removal of historical or archaeological resources. If this change is made, these permits would only be issued after an individual consistency review is completed.

[Note: The program document also inaccurately included Scientific and Educational Collecting Permits (p. 7-9), Log Salvage Sales (P. 7-9), and approvals subject to the Alaska Surface Coal Mining Control and Reclamation Act (p. 7-13) as authorizations to be moved to the "C list". This is not NANA's intent.]

Conclusion: As provided in 6 AAC 50.050(e), NANA's proposal to amend the "Classification of State Agency Approvals under 6 AAC 50" is being reviewed in the manner provided in 6 AAC 50.070 for project consistency reviews. This review is occurring concurrently with review of this conceptually approved draft. The results of the review will be reflected in the revised findings and conclusions.

The NANA implementation program meets the requirements of 6 AAC 85.100. DGC will work with NANA to ensure that the project application and implementation requirements of the NANA program (Sections 7.7 and 7.10) are appropriate to allow the district to fully evaluate the consistency of a project with the policies of the NANA CMP, without causing unnecessary burdens to applicants or delays in completion of consistency reviews under 6 AAC 50.

6 AAC 85.110 PUBLIC PARTICIPATION

Each district program must include evidence of effective and significant opportunities for public participation in program development under 6 AAC 85.130 of this chapter.

6 AAC 85.130. PUBLIC INVOLVEMENT DURING PROGRAM DEVELOPMENT

(a) Districts shall provide publicly advertised opportunities for public involvement in the development of all program elements contained in 6 AAC 85.020 6 AAC 85.110.

(b) No less than two public meetings must be held within the district during program development to inform the public and receive comments concerning the program. A brief summary or report of the matters considered at the public meeting held under this subsection must be prepared by the district, made available to the public, and retained for inclusion in the record file referred to in 6 AAC 85.150.

(c) Districts shall provide the public, in a timely manner and in understandable form, information explaining the district coastal management program, the requirements of public participation in program development, how and when the public may participate in program development, what information is available, and where that information may be obtained.

Finding: The public participation process conducted prior to and including the production of the public hearing draft is described in Chapter 9 of the program document (Volume 1). An exemplary program has been conducted. Numerous meetings have been held on the program in all of the villages of the region. Village and IRA Councils, and the region's native corporations, were closely involved in plan development. Newsletters and slide shows were used to convey the program to the public.

Following distribution of the public hearing draft, the district continued its exemplary public participation process. A formal public hearing was advertised as required. The hearing was held on July 23, 1985, when the plan was conceptually approved by the CRSA board.

Conclusion: The requirements for public involvement have been met. The district should complete its summary of the public involvement process for inclusion in the document when its reprinted.

6 AAC 85.140. COORDINATION AND REVIEW

Districts shall provide opportunities for coordination and review by federal, State, and local governmental agencies, including adjacent districts, and other persons with a significant interest in coastal resources or who are conducting or may conduct uses and activities that have or are likely to have a direct and significant impact on the district's coastal area.

Finding: The district provided extensive opportunities for involvement by all interested parties.

Conclusion: The requirement has been met.

6 AAC 85.145. REVIEW OF PUBLIC HEARING DRAFT

(a) This section applies to district programs and significant amendments to district programs.

(b) A public hearing draft of the district program must be distributed to all parties identified as having a significant interest in the district program, including those parties described in 6 AAC 85.140. The mailing list of these parties must be reviewed and approved by the Office of Coastal Management. The public hearing draft must include all elements to be included in the district program when it is conceptually approved. At least a 60-day review period must be provided. A transmittal letter that states the comment deadline and the recipient of comments must be sent with the document. One or more review meetings may be sponsored by the Office of Coastal Management, with the concurrence of the district.

(c) Public notice of the availability of the document must be given to any person who has requested it in writing, and through conspicuous advertisement in a newspaper of general circulation within the district. Notice must also be posted in villages and municipalities within the district. Comments received by the deadline must be considered by the district and, where appropriate, incorporated into the plan before conceptual approval.

(d) A public hearing on the district program must be held before conceptual approval is given and no sooner than 30 days after distribution and notice of the public hearing draft under (b) and (c) of this section. Notice specifying time and place of the hearing must be provided to all who were provided the public hearing draft, and also by conspicuous advertisement in a newspaper of general circulation within the district and by advertisement in a newspaper of general circulation within the State. Notice must be given at least 30 days before the hearing is held.

(e) At the public hearing, each person must be given the opportunity to present statements orally or in writing. Districts shall insure that translation into the appropriate native languages is provided. A written transcript or electronic recording of the public hearing must be provided to the Council. Comments offered at the hearing must be considered by the district and, where appropriate, incorporated into the plan before conceptual approval.

(f) Districts must give conceptual approval to their district program before the program is submitted to the Council. District programs must be adopted by resolution of the district's governing body except that coastal resource service area plans must be adopted by resolution of the board.

Finding: The public hearing draft of the program was distributed August 31, 1984, for a 90-day review. The appropriate mailing list was used and the required notices were

published. Public meetings were held in all villages. Public hearings were held in Kotzebue and in Anchorage during the review period.

The program was conceptually approved by resolution on July 23.

Conclusion: The requirement has been met.

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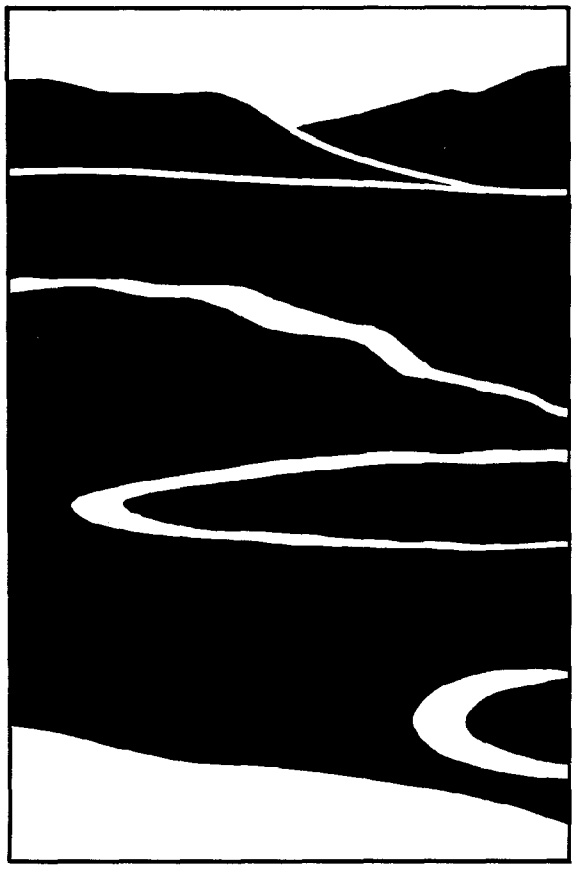

NANA Region

Serving the communities of: Kotzebue, Ambler, Buckland, Deering, Kiana, Kivalina, Kobuk, Noatak, Noorvik, Selawik and Shungnak.

Coastal Management Plan

CONCEPT APPROVED DRAFT

Volume 1

PLAN DOCUMENT

OCTOBER 1985

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CRSA BOARD MEMBERS

Past Members

Johnny K. Carter
Sam Barr
Al Adams
Dennis Tiepelman
John Schaeffer
Larry Westlake
Levi Cleveland
Russel Adams
Ron Moto
Jeff Hadley
Lowell Sage

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Enoch Adams

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Maniilaq Board of Directors
Marie Schwind - President

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Jeff Smith - Former Vice President, Operations
Mary Schaeffer - Vice President, Operations
Matt Conover - Regional Strategy Coordinator
Kathy Leferink - Former Regional Services Coordinator
Paul Hansen - Regional Services Coordinator
John Christenson - Former Media Planner
Robert Rawls - Media Planner
Linda Brown - Former Administrative Assistant
Annie Martin - Former Administrative Assistant
Marcia Kumamoto - Planning Assistant
Cushla Thompson - Planning Assistant

VILLAGE RESOURCE CONTACTS

Ambler
Louie Commack, Jr.
William Greist

Buckland
Nathan Hadley
Ernest Barger

Deering
Emerson Moto
Chris Jones

Kiana
Elwood Atoruk
Ralph Stoney

Kivalina
Enoch Adams
Raymond Hawley

Kobuk
Marilyn Snell
Elmer Ward

Noatak
Bill Bailey
James Adams

Noorvik
Frank Wells
Thomas Pungalik

Selawik
Larry Larkin
Ralph Ramoth

Shungnak
Stanley Custer
Leonard Douglas

CONSULTANTS

Jon Isaacs, Jon Isaacs and Associates
Gorden Lewis, Community Planning
Jim Glaspell, Resource Analysts
Lynne Hale, LZH Associates
Nancy Hemming, Falls Creek Environmental
Ralph Darbyshire, Darbyshire and Associates
Lamar Cotten, Darbyshire and Associates
Steve McNabb, John Muir Institute
Bill Hanley, Darbyshire and Associates

KOTZEBUE CONTRIBUTORS

Kotzebue City Planning Commission
Brad Reeve - Planning Commission Chairman
Carol Delahante - City Planner
Bruce Kovarik - ex-City Manager

NANA CORPORATION STAFF

John Schaeffer - President
Walter Sampson - Lands Manager
Don Argetsinger - Vice President, Development
John Rense - Vice President, Operations
Bert Greist - Assistant Vice President
Dave Hanson - Consultant

KIKIKTAGRUK INUPIAT CORPORATION

Dennis Tiepelman - President
Willy Goodwin - Lands Manager

FEDERAL AGENCIES

Kent Hall, Refuge Manager, Selawik National Wildlife Refuge
Mack Shaver, Superintendent, NWA National Parks
Woody Woodworth, Bureau of Land Management

STATE AGENCIES

Rollie Quimby - ADF&G Area Game Biologist
Derick Craighead - Former Assistant Game Biologist
Brian Bigler - ADF&G Fisheries Biologist
Glen Seamon - ADF&G Habitat, Coastal Management Coordinator
Rick Sinnot - ADF&G Habitat, Coastal Management Staff

Tom Lawson - DNR Coastal Management Coordinator
Randy Cowart - DNR Resource Allocation
Bill Beatty - DNR Resource Allocation

Wayne Marshal - DCRA, Planner 4
Roger Maggard - DCRA, Former Planner
Mark Stephans - DCRA, Former Planner

Jan Mills - DGC Senior Analyst
Amy Kyle - DGC Former Staff Member
Diane Mayer - DGC Former Staff Member
Michele Shook - DGC Former Staff Member

1.0 INTRODUCTION

1.0
INTRODUCTION

The NANA region covers approximately 36,000 square miles in northwestern Alaska. Encompassing most of the drainage of the Noatak, Kobuk, Selawik Kivalina, Wulik, Immachuk and Buckland Rivers, the area extends approximately 175 miles north to south and 250 miles east to west. The coastline contains numerous lagoon systems and small islands which are important to the people and wildlife of the area. The 11 different communities in the region are home to approximately 5,000 residents. Over 90 percent of the population is Inupiat Eskimo. The 11 communities include:

Ambler	Kivalina	Noorvik
Buckland	Kobuk	Selawik
Deering	Kotzebue	Shungnak
Kiana	Noatak	

The pursuit of subsistence activities continues to provide the foundation for traditional cultural values and the community and regional economies. Within the last decade, NANA residents have worked to strengthen their economy through the development of reindeer herding, trapping, native crafts, jade, small scale agricultural and timber activities, and more recently, mineral resources. However, it has been a regional policy to balance economic development with maintenance of the traditional Native culture.

Several entities within the region have participated in planning for regional growth. The NANA Regional Native Corporation, strengthened by its merger with 10 of the 11 village corporations, has attempted to manage its resources within the region in a manner that brings benefits to its shareholders without losing traditional values. Maniilaq

Association, the non-profit arm of NANA Corporation, has assisted through the provision of health, social, and planning services to the region. Kikiktagruk Inupiat Corporation (KIC), the Kotzebue Village Corporation has followed a similar course. The City of Kotzebue constitutes a fourth partner in regional development. A draft comprehensive plan and zoning ordinance has recently been completed by the City. The Inupiat Ilitquisiat Program (Spirit Program) has worked hard to maintain traditional values throughout the changes made by the region's residents.

Local planning activities must address another major consideration. Like other areas in the state, the NANA region contains a high percentage of lands owned by the federal and state government. These lands include national parks and monuments, wildlife refuges, other state and federal lands, and natural resources with economic development potential. Activities associated with the use of state and federal land and water resources have an impact on the communities of the region. Because of this impact local residents want to participate in decision making on the management of state and federal land and water resources. The Alaska Coastal Management Program provides an opportunity for this participation.

What is Coastal Management

Coastal management is a joint effort by local, state, and federal governments and the private sector to manage coastal resources and promote their wise and balanced use.

In 1972, recognizing the national need for a coordinated approach to the balanced utilization of coastal resources, Congress passed the Federal Coastal Zone Management Act (CZMA). The CZMA established a national program for the management, beneficial use, protection and development of the land and water resources of the coast. The federal program was designed to assist states in exercising their management responsibilities over land and water resources through the development

and implementation of state coastal management programs. The interest of Congress was to achieve wise use of land and water resources of the coastal zone while giving consideration to ecological, subsistence, cultural, recreational, historical and aesthetic values, as well as the need for economic development. The act directs a federal agency conducting or supporting activities directly affecting the coastal zone to conduct or support those activities in a manner which is, to the maximum extent practicable consistent with approved state coastal programs. The federal act also requires that federally licensed or permitted activities affecting land or water uses in the coastal zone be conducted in a manner consistent with federally approved state coastal management programs.

Alaska followed the federal lead in 1977 in the passage of the Alaska Coastal Management Act, which provided for a state coastal management program methodology based on the partnership of shared state and local management responsibility for coastal areas and resources.

The Alaska Coastal Management Act created, in the Office of the Governor, the Alaska Coastal Policy Council. One of the initial duties of the Council was to adopt use, habitat, and resource standards for the Alaska Coastal Management Program and guidelines for the development of district coastal management programs. These standards and guidelines were subsequently approved by the Legislature and accepted into the Alaska Administrative Code, serving as the minimum requirements for coastal management programs in Alaska. Both the local coastal resource districts and state agencies are bound by the standards when considering uses and activities in coastal areas, coastal habitats, and specified coastal resources. The guidelines of the Alaska Coastal Management Program outline the planning process which local coastal resource districts will utilize in preparing a district coastal management program.

The Alaska Coastal Management Act provides for district coastal programs to be developed in conformity with the general guidelines and standards of the Alaska Coastal Management Program. District coastal

programs are developed at the local level and reflect the unique local issues, resources, and policies toward coastal management. Such district coastal programs are subject to review by state and federal agencies and approval by both the Coastal Board and the Alaska Coastal Policy Council. Approved and adopted local programs become part of the Alaska Coastal Management Program, and submitted for federal approval as an amendment to the state program.

Coastal management program elements form the core of the district program. Elements addressed in the program development include:

Needs, Objectives and Goals;
Organization;
Boundaries;
Resource Inventory;
Resource Analysis;
Subject Uses;
Proper and Improper Uses;
Policies;
Implementation; and
Public Participation.

In addition to the district coastal management program elements, the Alaska Coastal Policy Council has approved and adopted standards for major land and water uses and activities, coastal habitats, and resources in the coastal zone. Uses, habitats and resources addressed in program development include:

Coastal Development;
Geophysical Hazard Areas;
Recreation;
Energy Facilities;
Transportation and Utilities;
Fish and Seafood Processing;
Timber Harvest and Processing;
Mining and Mineral Processing;
Subsistence

Coastal Habitats, including offshore areas, estuaries, wetlands and tideflats, rocky islands and seacliffs, barrier islands and lagoons, high energy coastal, important upland habitats, and rivers, streams and lakes;

Air, Land and Water Quality; and

Historic, Prehistoric, and Archaeological Resources.

Another important coastal management program aspect which is addressed by the NANA Coastal Plan is Areas Meriting Special Attention (AMSA). An AMSA designation allows for special management efforts, above that provided for most coastal areas and resources, for unique aesthetic, ecological, geophysical, or industrial values present in a delineated geographic area.

History of the NANA CRSA Program

On December 14, 1978, residents of the NANA region (REAA 1) formally submitted a petition requesting the organization of a NANA Coastal Resource Service Area (CRSA). After the City of Kotzebue submitted a resolution noting its desire to be part of the NANA CRSA, the Alaska Coastal Policy Council submitted the petition to the Lieutenant Governor.

On April 3, 1979, the region's voters approved organization of the NANA CRSA. On June 26, 1979, the voters elected seven individuals from five different election districts to sit as their Coastal Resource Service Area Board.

Following the election of the Board, the Department of Community and Regional Affairs retained Maniilaq Association to provide start-up support for the newly elected Board. As part of its charge, Maniilaq furnished staff support to the Board and retained consulting assistance to produce a detailed work program that delineated the scope, content, cost, and scheduling for producing the area's coastal management plan. Maniilaq has continued to support throughout the plan's development.

During the preparation of this plan yearly elections have been held which have resulted in changes in the coastal board members from the original membership. Both staff and consultant teams have also undergone a complete change.

The first products of the new coastal district were prepared in March of 1982, and consisted of draft goals and objectives and a resource inventory. In August of 1982 the Coastal Board initially proposed a zoning approach to regulate land use and development in the area. However, after considering the concerns of major landowners in the area, the coastal board decided on a different system using a policy approach. Between October 1982 and July 1983 additional resource inventory and analysis were completed, and extensive background work with the villages and major landowners was done to support this new approach. This Concept Approved Draft is the result of work begun in late 1983 and the first half of 1984 to pull together all the past work, identify important areas and resources, develop meaningful policies, an implementation system, and Areas Meriting Special Attention.

Development of this NANA Coastal Plan has taken into account resources on federal lands to assure that uses of the region's resources are compatible and consistent with the coastal management plan. This plan is intended to be used as an advisory tool for federal land managers in development of management plans and in completing consistency determinations for activities in federal lands.

Program Intent and Direction

The NANA Coastal Management Program is tied closely to the subsistence lifestyle of the Inupiat people and the resources on which they depend. Northwestern Alaska is a great frontier area. This large expanse is far from unused as it serves as the homeland of the NANA people who have inhabited this region for more than 4000 years. Subsistence hunting, fishing and foraging is a matter of survival to

the people of the area. This strong relationship between the people of the region, and their environment, and the renewable land and sea resources provides the framework of this plan.

The NANA Coastal Management Plan is intended to provide for uses and activities which can be conducted in a manner to prevent disturbance of the existing delicate balance between the people of the area and their environment.

Approval Process

The public hearing draft was distributed on October 1, 1984. This began the approval process for the plan. Concept approval was given by the CRSA Board in July 1985. Final approval by the Coastal Policy Council is scheduled for February of 1986.

Plan Organization

This Concept Approved Draft contains the information required by the standards and guidelines of the Alaska Coastal Management Act. It emphasizes the values and concerns important to the people of the NANA Region. The organization of the Concept Approved Draft is shown below:

- Chapter 2.0 Boundaries describes the area affected by the coastal management plan and why these boundaries were chosen.

- Chapter 3.0 Resource Inventory and Analysis Summary is a summary of important resources and activities that are reflected in the policies of the program.

- Chapter 4.0 Needs/Goals/Objectives presents the needs and concerns of people within the coastal area, and the program goals and objectives that address them.

- Chapter 5.0 Uses and Use Areas lists the uses and activities subject to the coastal management program, and develops areas of special and restricted/sensitive use.

- Chapter 6.0 Policies are the enforceable rules of the program, and are used to determine consistency with the coastal management program.

- Chapter 7.0 Implementation describes how the State of Alaska and the CRSA Board will make consistency determinations, including the role of local communities and landowners.

- Chapter 8.0 Areas Meriting Special Attention includes the three AMSA's designated by this program.

- Chapter 9.0 Public Participation documents the efforts to involve the public, state and federal agencies, and other interested parties in program development.

- Appendices A and B provide detailed resource inventory and analysis data used to develop the policies and to identify use areas and areas meriting special attention.

- Appendix C lists the references used in the preparation of the Concept Approved Draft.

2.0 COASTAL AREA BOUNDARY OF THE NANA CRSA

2.0
COASTAL AREA BOUNDARY OF THE NANA CRSA

2.1 INTRODUCTION

The identification of the inland and seaward limits of the NANA Coastal Resource Service Area coastal zone boundary is an important part of the development of the Coastal Management Program. The coastal zone is the area to which enforceable policies of the NANA CRSA Coastal Management Plan directly apply. This area is referred to in the Alaska Coastal Management Program (ACMP) Guideline 6 AAC 85.040 as the "coastal area". The coastal area includes all lands and waters within its boundaries not subject to the exclusive jurisdiction of the federal government (i.e., State and private lands and waters). Under federal law, federal lands are "excluded" from the State's coastal area. Uses and activities on these federal lands and waters which have direct effects on State coastal resources must be consistent with the district program to the maximum extent practicable (Section 307(c), Federal Coastal Zone Management Act of 1972, as amended).

The Alaska Department of Fish and Game, in cooperation with the Office of Coastal Management, commenced work on defining the coastal zone of Alaska in 1975. In 1978, the Department completed the study and released its findings in a series of maps entitled the Biophysical Boundaries of Alaska's Coastal Zone. The coastal area was defined in terms of three zones: direct interaction, direct influence, and indirect influence. These zones were established as a result of interviews with biologists and others familiar with the region and a comprehensive review of the literature on the biological and physical processes along Alaska's coastal region. The criteria used to delineate these zones are included on the referenced maps.

The Coastal Policy Council adopted the three-mile territorial limit of State waters as the seaward limit of the coastal zone, and the inland extent of the zone of direct influence as the landward limit of the coastal zone. This zone is depicted on maps entitled Interim Coastal Zone Boundaries of Alaska, published by the Office of Coastal Management. ACMP Guideline 6 AAC 85.040 allows coastal districts to adopt the initial (interim) coastal boundary or deviate from it. No justification is required from the coastal district if it adopts the interim coastal boundary. However, coastal districts must provide justification as outlined in 6 AAC 85.040 where they diverge from the initial boundaries. The final boundaries may deviate from initial boundaries if the district demonstrates that the adjusted boundaries:

(1) extend inland and seaward to the extent necessary to manage uses and activities that have or are likely to have a direct and significant impact on marine coastal waters; and

(2) include all transitional and intertidal areas, salt marshes, saltwater wetlands, islands and beaches.

The term "marine coastal water" as used in (1) above is defined as "water adjacent to shorelines which contains a measurable quantity of seawater, including sounds, lagoons, bayous, ponds, and estuaries, and the living resources that depend on these bodies of water" (6 AAC 85.900(2)). In other words, the coastal area boundary may extend inland to the extent necessary to manage uses and activities that have or are likely to have a direct and significant impact on the living resources that depend on saline coastal waters. The U.S. Department of Commerce (1979) in the Final Environmental Impact Statement for the ACMP concluded that, "... with all of these (biological and geophysical) relationships established, the "biophysical boundary" method simply declares that an impact on these relationships could result in an 'impact on the coastal waters', (the) ACMP went further, and declared that an impact on animals using the coastal waters, including anadromous fish, is part of the definition of impacts on coastal waters."

If these criteria are met, then the final boundaries of the coastal area subject to the district program may be based on political jurisdiction, cultural features, planning areas, watersheds, topographic features, uniform setbacks, or the dependency of uses and activities on water access (6 AAC 85.040(d)). The final boundaries of the district must be sufficiently compatible with those of adjoining areas to allow consistent administration of the Alaska Coastal Management Program (6 AAC 85.040(e)).

2.2 NANA CRSA COASTAL ZONE BOUNDARY

The seaward coastal zone boundary of the NANA CRSA remains unchanged from the interim boundary, extending three miles seaward from the coastline and including all of the estuarine waters of Kotzebue Sound (Map 1).

The inland boundary of the NANA CRSA coastal area deviates from the interim coastal zone boundary by encompassing the watersheds of the major drainage systems which provide important spawning, rearing, and overwintering habitats for significant populations of anadromous fish within the region (Maps 3 and 4). The major drainage systems include the watersheds of the Kivalina, Wulik, Noatak, Kobuk, and Selawik Rivers and the Kotzebue Sound drainages of the northern Seward Peninsula, including the Buckland, Kiwalik, Kugruk, Inmachuk, and Goodhope Rivers. The inland coastal boundary encompasses only the areas in the NANA CRSA which drain into Kotzebue Sound or the Chukchi Sea. The watershed of the upper Noatak River is excluded from the coastal boundary along a line which follows the southern limits of the Noatak National Park and Preserve from the east boundary of the NANA CRSA to the Range 5 West/Range 6 West boundary, thence north to the northern limits of the NANA CRSA (Map 1). The inland coastal boundary extension is necessary to manage uses and activities that have or are likely to have direct and significant impacts on marine coastal waters and the populations of anadromous fish which are dependent upon coastal waters. Anadromous fish are an important component of the natural resources of the NANA CRSA, supporting both subsistence and

commercial fishing activities which are an integral part of the lifestyle of residents of the region.

The Biophysical Boundaries of Alaska's Coastal Zone limit the zone of indirect influence within the NANA CRSA to waters which flow into Kotzebue Sound or the Chukchi Sea. The Kotzebue Sound watershed approximates the boundary of the NANA CRSA, and the Chukchi Sea watershed extends beyond the NANA CRSA (Map 1). The interim coastal boundary delineated in 1978 does not encompass all resources dependent on marine coastal waters nor the full range of uses or activities that could have a direct and significant impact on marine coastal waters. In the NANA CRSA, only the zone of "indirect influence" encompasses all pertinent resources and impacts, as discussed in Section 2.3.

2.3 JUSTIFICATION FOR INLAND COASTAL BOUNDARY

The justification for modifying the NANA CRSA coastal boundary to encompass all areas where uses and activities may have a direct and significant impact on coastally dependent resources requires an understanding of:

(1) topographic features, drainage basins, and the inland extent of contiguous coastal wetlands and stream basin riparian habitats;

(2) important biological resources and physical processes which are dependent on marine coastal waters (life history and distribution);

(3) existing and anticipated future uses and activities in the Coastal District; and

(4) the extent to which these uses and activities have or are likely to have a direct and significant impact on marine coastal waters.

The following sections of this chapter provide a rationale for NANA CRSA coastal boundary adjustments based on these four components. The discussion will concentrate on adjustment inland of the interim boundary since the interim coastal zone boundary and its criteria were previously approved by the Coastal Policy Council.

2.3.1 Topography, Drainage Basins, and Coastal Wetlands

The topography of a coastal district is an important determinant of the area where uses and activities may have a direct and significant impact on coastally dependent resources. Mountainous areas typically magnify impacts because (1) surface runoff due to spring breakup and storm events is generally more rapid and more difficult to control, (2) vegetation is commonly sparse and characterized by low-lying mats which necessitate much broader natural buffers, (3) natural hazards are more pronounced and capable of damaging man-made developments, and (4) remedial or emergency measures are difficult to implement due to the remoteness of development sites and rugged terrain.

The topography of the NANA CRSA is characterized by east-west trending ridges of the Brooks Range, Baird Mountains, and Waring Mountains which separate the westward flowing drainage basins of the Noatak, Kobuk, and Selawik Rivers. These systems all flow into Kotzebue Sound, as do the rivers and streams of the northern Seward Peninsula within the NANA CRSA. Drainages which terminate in marine waters between Cape Krusenstern and Cape Seppings flow directly into the Chukchi Sea.

Most of the freshwater drainage systems in the Coastal District discharge into Kotzebue Sound. This water body is therefore a focal point of the major river basins and fish and wildlife resources which are dependent on coastal waters. Alluvial river deltas, broad riparian floodplains, and contiguous wetland areas interspersed with lakes and ponds are present for significant distances inland from the coast along the Noatak, Kobuk, and Selawik Rivers. The delta of the Kobuk River covers nearly 700 square miles, extending 45 miles inland.

The presence of continuous coastal wetlands is most pronounced along the basin of the Selawik River where it extends approximately 60 miles inland from Selawik Lake forming a broad, interconnected wetland and lake/pond complex covering nearly 2400 square miles.

Adjoining the broad river valleys, the topography of the intervening mountain ranges rises abruptly to 2,500 to 5,500 feet in elevation where the peaks and ridges are interspersed by numerous incised stream valleys. These higher elevation tributaries to the major rivers are generally short-length, steep gradient streams characterized by rock or cobble streambeds. Some of the streams are intermittent, while others may have continuous winter flows as evidenced by naturally-occurring areas of aufeis (icings) during the winter.

Since these streams are often encircled by steep and sparsely vegetated mountainsides, their flow is highly responsive to runoff at breakup and seasonal storm events. Hydrologically, the seasonal flow of water, sediment loads, and water quality are important factors affecting the status and biological productivity of the major rivers to which they are tributaries.

2.3.2 Resources Dependent on Coastal Waters

The distribution and life histories of biological resources are important determinants of the area where uses and activities may have a direct and significant impact on coastally dependent resources. The ACMP requires a discussion of coastally dependent resources that have a potential to be directly and significantly impacted. Some species provide a clearer justification for coastal boundaries because their distribution, life histories, and dependence on saline coastal waters is more apparent and comparatively well documented.

Caribou seasonally utilize coastal areas for insect relief, feeding, and migration. Waterfowl which are dependent on the availability of coastal staging, resting, and feeding areas during spring and fall migration may also utilize wetland nesting habitats significantly

inland from coastal waters. However, the direct association and dependence of anadromous fish on both marine and freshwater areas provides the strongest justification for the modification of coastal area boundaries to facilitate management of uses and activities which may adversely affect these coastal resources. Anadromous fish utilize saline waters during some stage of their life history cycle for feeding, rearing, migrating, overwintering, or combinations of these events; spawning activities of all anadromous fish occur in freshwater systems. Within the NANA CRSA, anadromous fish present in fresh and saline waters of the region include Arctic char, salmon (chum, pink, coho, king, and sockeye), and whitefish (sheefish, least cisco, Bering cisco, Arctic cisco, round whitefish, broad whitefish, and humpback whitefish). The distribution of these species within parameters of the NANA CRSA is shown on Maps 3 and 4. Of these species, Arctic char, chum salmon, pink salmon, and sheefish are most abundant and important to the residents of the region. The following summary presents important aspects of the life history of some anadromous fish species in the NANA CRSA pertinent to the boundary justification. Detailed discussions of the occurrence, preferred habitats, and life history of these species are presented in Chapter C of Volume 2.

2.3.2.1 Anadromous Fish Life Histories

Arctic Char

Arctic char occur in greatest numbers in the Noatak, Kivalina, and Wulik Rivers although they are present in many systems within the NANA CRSA. Char spawn during the fall in gravel substrate river pools, often near lakes (Morrow 1980). When they return to freshwater to spawn, char cease active feeding. The female constructs a redd (streambed spawning depression) in which the eggs are deposited and fertilized; several redds may be constructed during the spawning period. Eggs incubate and develop in the gravel during the winter and hatch shortly after break-up in the spring. Dames and Moore (1983) reported that Arctic char eggs hatch in June in the Wulik River. The newly-emerged fry disperse throughout the freshwater river system and

its tributaries, returning to the main stem of the system during August to September.

Juvenile char feed and rear in freshwater habitats until two to four years of age when they migrate to marine coastal water as smolts. While rearing in freshwater, young char feed primarily on insects. In marine waters, both adult and juvenile Arctic char feed actively on sand lance, other small fish, and epibenthic crustaceans. Adult char have been observed moving north along the ice edge near Cape Thompson in the spring, and an adult char tagged in a spawning area in the Noatak River was recovered a year later near Point Hope (DeCicco, personal communication). Arctic char return from marine waters to freshwater systems along the Chukchi coast by mid-August to overwinter until the following spring (Dames and Moore 1983). Recent studies have shown that char may utilize different river systems for spawning and overwintering, necessitating several annual transits between freshwater streams through marine coastal waters (DeCicco 1984). Arctic char of all age classes overwinter in freshwater. The availability of suitable overwintering areas, pools of unfrozen water, and sufficiently oxygenated water of good quality are factors critical to the winter survival of Arctic char. Although some char may be resident in lakes and upper reaches of streams, most of the char in the NANA CRSA are anadromous.

Chum Salmon

Chum salmon are widely distributed within the NANA CRSA with the Noatak River supporting the largest population, followed by the Kobuk River. Smaller populations of chum salmon are also found in the Inmachuk, Kugruk, Kiwalik, Buckland, Kauk, Asikpak, Wulik, and Kivalina Rivers (Smith et al. 1966, Cunningham 1976, Bird 1981, Morris 1981, Dames and Moore 1983). Mature chum salmon begin entering rivers of the region to spawn from July through September. In some systems, fish that enter freshwater early in the season spawn in the lower reaches of the rivers; later season spawners (after August) tend to use spawning areas in the upper reaches of the systems. Chum salmon

spawning sites in the NANA Region are almost exclusively confined to spring areas where winter water temperatures are moderated. It has been suggested that chum salmon populations in the region are primarily limited by the availability of suitable spawning locations (Merritt and Raymond 1982; Bigler, ADF&G, personal communication).

The female chum salmon excavates a redd in a gravelly stream substrate where extruded eggs are fertilized by the dominant of several males in attendance. The female then excavates another redd slightly upstream to cover the freshly deposited eggs. Both male and female chum salmon die after spawning. The eggs incubate in the gravel throughout the winter; fry emerge in late spring and migrate directly to coastal waters in mid-June, feeding primarily on aquatic insects. chum salmon do not rear in freshwater systems. After three to five years in offshore oceanic waters, chum salmon return to their natal streams to spawn.

Pink Salmon

Pink salmon are fairly widespread throughout the NANA CRSA but are less numerous than chum salmon. Pink populations have been reported in the Inmachuk, Kiwalik, Buckland, Wulik, Kivalina, Asikpak, and Noatak Rivers (Smith et al. 1966; Cunningham 1976; Morris 1981; Dames and Moore 1983; Bigler, in press). Pink salmon generally spawn in the lower reaches of short coastal streams. Preferred spawning habitat is in water depths greater than 0.15 meters, in current velocities of 0.21 to 1.10 meters per second, and where the gravel substrate is 1.3 to 10.2 centimeters in diameter (ADF&G 1983). Adult pink salmon begin to enter rivers to spawn in early July; migration within the rivers appears to concentrate in relatively shallow water along the banks (Bigler, ADF&G, personal communication).

Spawning activity of pink salmon is similar to that for chum salmon. Fertilized eggs develop in the gravel for 8 to 18 weeks; the alevins remain in the gravel, however, until the following spring. After emergency from the gravel, pink salmon fry immediately migrate to

marine coastal waters during late May through June. This outmigration usually occurs during hours of darkness, and the fry do not feed. Pink salmon fry school in nearshore marine waters for about a month before migrating to offshore waters. Pink salmon remain in marine waters for 12 to 18 months before maturing. This two-year cycle for pink salmon makes them more abundant in even-numbered years in the NANA CRSA.

King, Coho, and Sockeye Salmon

Life history activities of these three salmon species are similar to those for chum and pink salmon except for timing of spawning, preference for spawning habitats, and the length of time spent in freshwater after emergence from the gravel as fry. King, coho, and sockeye salmon may spend from one to five years rearing in freshwater aquatic habitats prior to migrating downstream to the ocean as smolts. Streams which support these species must provide suitable rearing, feeding, and overwintering habitats in addition to acceptable spawning sites. Since spawning, rearing, and overwintering habitats often have different characteristics, in-stream movement of fish between seasonal use areas may occur. The presence of juvenile salmonids of different stages of development at all times of the year makes watercourses which support king, coho, or sockeye salmon potentially vulnerable to adverse environmental alterations throughout the year.

Sheefish

Sheefish, also known as inconnu, are present in the Kobuk and Selawik River systems where they represent a significant subsistence, commercial, and sport fishing resource. Sheefish are also present in the "Little Noatak", Inmachuk, Shungnak, and Ambler Rivers but their populations are relatively small. Sheefish found in the main stem of the Noatak River are primarily non-spawners.

Sheefish spawn in late September and early October in swift streams with mixed gravel and sand substrate. During migration to spawning

areas, sheefish do not actively feed. In the Kobuk and Selawik Rivers, sheefish spawn in very discrete locations (Alt 1983). Sheefish generally do not move into lakes and tributaries, but are present primarily in the main channels of these systems.

Redds are not constructed; the eggs are simply extruded over the stream bottom and fertilized by the male as they sink. The eggs hatch from late February to April and are most likely swept downstream during spring floods.

The early development life history of sheefish is poorly understood. Young fish feed initially on plankton and consume insects as they grow larger. Adult sheefish consume insect larvae, isopods, and other fish such as lease cisco and juvenile salmon. Sheefish move into coastal estuarine waters to rear and overwinter; Alt (1979) found that the majority (75% to 91%) of sheefish sampled in Kotzebue Sound, Hotham Inlet, Selawik Lake, and the Lower Kobuk River during June and early September were immature. Overwintering of sheefish occurs in Selawik Lake and Hotham Inlet, with upstream movement into freshwater systems occurring shortly after breakup. Hotham Inlet is an extremely important overwintering and rearing area for sheefish.

Whitefish

Several species of whitefish, including humpback, broad, and round whitefish and lease cisco are present in freshwater systems and saline waters of the NANA CRSA. Whitefish species occur in the Kivalina, Wulik, Noatak, Kobuk, and Selawik River systems and in the drainages of the northern Seward Peninsula. They are present in nearshore waters of Krusenstern Lagoon, Hotham Inlet, Selawik Lake, Inland Lake, and along the Baldwin Peninsula of Kotzebue Sound.

Life history activities of whitefish in the NANA CRSA are only generally known. Least cisco, an important subsistence resource in the Kobuk River (10,000 to 40,000 harvested annually, Alt 1980), move upstream to spawn in September and October. Spawning over a gravel

substrate often takes place in the same vicinity of the Kobuk River used by spawning sheefish, but closer to shore and in shallower water. In the Selawik River system, whitefish species also spawn in the same area in which sheefish spawn, although additional spawning areas for whitefish may also be present in the Tagagawarik River.

Whitefish generally overwinter in deep pools of main river channels and lakes, moving into brackish or estuarine waters during the summer. Round whitefish are an exception as they are primarily inhabitants of freshwater systems throughout the year. Whitefish are numerous in the Selawik River, feeding in essentially all the freshwater lakes and sloughs in the lower river (Alt, ADF&G, personal communication). Whitefish, along with sheefish, are the most important subsistence resource in the Selawik area.

2.3.2.2 Anadromous Fish Distribution and Abundance

Within the area delineated by the NANA CRSA coastal boundary, the distribution of significant populations and important use areas for anadromous fish is shown on Biological Resource Maps 3 and 4. A summary of the distribution of anadromous fish species in the major drainage systems of the NANA coastal area is provided below:

Wulik/Kivalina Rivers

The Wulik and Kivalina Rivers provide spawning and overwintering habitat for chum salmon, pink salmon, king salmon, coho salmon, sockeye salmon, and Arctic char. The Wulik River is most important for char as it provides an overwintering area for 85,000 to 225,000 fish from the Wulik, Kivalina, and Noatak Rivers. The Wulik River spawning population of Arctic char is estimated to be 1,000 fish. Overwintering of incubating salmon eggs and juvenile and adult Arctic char occurs throughout the Wulik and Kivalina Rivers t the northern boundary of the NANA CRSA.

Noatak River

The Noatak River provides spawning habitat for salmon from the mouth to its upstream tributaries in the Schwatka Mountains. The mean annual escapement of chum salmon in the Noatak River is approximately 135,000 fish, although annual variation is significant. The Cutler River, a tributary to the upper Noatak River, support a significant population of spawning chum salmon. In addition, chum salmon use of the Noatak River upstream from the Cutler River confluence has been documented to Portage Creek, almost to the eastern boundary of the NANA CRSA (see Map 3). Nearly 80 percent of the Noatak River chum salmon population spawns in the lower 200 miles of the system with spawning areas concentrated between the mouths of the Eli and Kelly Rivers in the braided channels and sloughs located along the east bank. In recent years, up to 91,000 pink salmon have been reported to spawn in the lower Noatak River. The lower Noatak supports a population of sheefish and is a known overwintering area for Arctic char. Arctic char spawning areas have been documented in the Kugrak and Igning Rivers, tributary streams to the Noatak River 400 miles upriver from the mouth; winter sampling has shown that Arctic char overwinter at least 200 miles upstream from the mouth (DeCicco 1984).

Kobuk River

The Kobuk River supports a population of approximately 7,000 sheefish which represents about 75 percent of the total sheefish population in the NANA CRSA. The principal spawning area for sheefish occurs between the Ambler River and the Selby River; sheefish spawning is not known to occur anywhere else in the Kobuk River. The presence of sheefish has been documented in the Kobuk River upstream from the Lower Kobuk Canyon (Map 4).

Arctic char also spawn in the Kobuk River between the Ambler and Selby Rivers. Char have been documented in many of the northern tributaries of the Kobuk River including the Squirrel, Kallarichuk, Salmon, Tutuksuk, Hunt, Akillik, Redstone, Ambler, Kogoluktuk, Mauneluk, and

Killak Rivers; some areas of verified and suspected use extend into the headwaters of streams in the Schwatka Mountains (Map 4).

The Kobuk River supports the second largest run of chum salmon in the NANA CRSA (approximately 31,000 fish). Chum spawning areas on the Kobuk are more widespread than sheefish spawning sites. Many of the major tributaries that enter the Kobuk River from the north are known to support spawning chum populations, including the Selby, Kogoluktuk, Ambler, Hunt, Kaligurichеark, Tutuksuk, Salmon, Kallarichuk, Omar, and Squirrel Rivers. Important spawning grounds are also found between the Selby River and Reed River. Chum salmon have been documented in the Kobuk River upstream from the Lower Kobuk Canyon (Map 3).

Lease cisco is the most common whitefish species in this section of the river, and whitefish have been documented in the Kobuk River upstream from the Lower Kobuk Canyon (Map 4). King salmon occur in the Kobuk River and the Squirrel River; spawning has been reported in the Selby River near its confluence with the Kobuk River (Map 3).

Selawik River

Sheefish spawn in a very discrete section of the Selawik River below Ingraksuksuk Creek. Up to 1,000 sheefish have been reported to spawn in this area. Humpback whitefish, broad whitefish, and lease cisco spawn in the same general area used by sheefish. Salmon are not found in the Selawik River drainage.

Kotzebue Sound Drainages of the Northern Seward Peninsula

The following rivers are known to support anadromous fish populations, but little information is available concerning the numbers of each species present in these systems. The drainage basins for these rivers are relatively small compared to other rivers in the NANA CRSA.

Buckland River - chum salmon, pink salmon, king salmon, coho salmon, Arctic char

Kiwalik River - chum salmon, pink salmon, Arctic char
Kugruk River - chum salmon, pink salmon, Arctic char, sheefish
Inmachuk River - chum salmon, pink salmon, Arctic char
Goodhope River - pink salmon

2.3.3 Existing and Anticipated Uses and Activities in the NANA CRSA

Identification of existing and anticipated uses and activities is an important determinant of the coastal area. The ACMP requires the coastal zone boundary to encompass all uses and activities which may have a direct and significant impact on coastally dependent resources.

Human uses and development activities can adversely impact anadromous fish populations through direct mortality, loss of degradation of important habitats, migration barriers, or impairment of important life history functions (see Volume 2, Chapters C and D). Current and anticipated uses of the lands and resources within the NANA CRSA that could affect anadromous fish or their habitats include:

- placer mining
- sand, gravel, and rock mining
- pit mining for minerals or coal
- pipelines and related facilities, including pump and compressor stations, access roads, camp facilities, and airfields
- sanitary landfills, refuse and overburden disposal sites
- transportation and utility corridors
- work pads, facility pads, berms
- geophysical exploration
- oil and gas exploration and development
- sewage treatment facilities
- mineral extraction and processing facilities
- water removal for domestic use, camps, drilling operations, ice roads, and ice pads

Within the NANA CRSA, development projects which include some of the above activities or land uses are currently underway, in various stages of planning, or have the potential for future development depending on world economic conditions.

Large areas within the NANA CRSA have verified deposits of minerals and coal, and other locations within the region have been identified as highly prospective for future mineral discoveries. The most expansive of these mineralized zones includes a large portion of the Baird and Schwatka Mountains north of the Kobuk River and the area extending form the Selawik Hills west along the northern Seward Peninsula.

Most of the potential development projects considered for the NANA CRSA are dependent on prior or concurrent construction of a transportation infrastructure. Sites of potential mineral development are generally located in foothills or mountainous areas of steep topography drained by high gradient watercourses.

- A world-class lead and zinc mine located at Red Dog near the headwaters of the Wulik River in the Lisburne Mining District is steadily progressing toward development and production. The State of Alaska has provided funding for development of a haul road from the mine site to a port facility to be built along the Chukchi Sea coast south of Kivalina. Construction of these transportation facilities will likely encourage development of other economically viable mineral deposits in the same geographic region.

- The Kiana/Shungnak Mining District includes a number of verified mineral deposits for silver, antimony, gold, chromium, copper, molybdenum, nickel, lead, tin, uranium, and zinc. In addition, coal deposits of potential economic value and local use importance have been identified within this area. Development of the mineral potential within this region would be dependent on the availability of

transportation facilities to coastal ports or other established roadway systems. The Western and Arctic Alaska Transportation Study (WAATS) prepared in 1981 for the Alaska Department of Transportation and Public Facilities considered possible alignments for railroads, haul roads, and slurry pipelines to Cape Krusenstern or Nome as alternatives for transportation needs from this mining area.

- The Fairhaven Mining District between the Inmachuk and Kauk Rivers has deposits of lead, silver, gold, zinc, molybdenum, uranium, and coal (Chicago Creek) which also would require the development of a transportation infrastructure to permit export of mineral concentrates/ores and import of supplies.

Construction of utility corridors and transportation systems needed to develop mineral deposits within the NANA CRSA would be a significant undertaking for most of the commercially viable deposits due primarily to the length of roadway, railroad, or pipeline systems which would be necessary.

Examination of the location of state lands (tentatively approved and selected) and native lands (interim conveyance and selected) suggests that the economic potential of mineral deposits was an important factor in the land selection process. State and native lands encompass or adjoin a significant portion of the areas with verified deposits of minerals and those which are highly prospective for future discoveries.

A comparison of the area within the coastal boundary extension and the geographic areas encompassed by high mineral potential, verified mineral deposits, and potential transportation corridors indicates the possibility of significant interaction between development activities and aquatic habitats which support or maintain anadromous fish populations. Proposed and anticipated uses and activities in the NANA CRSA could impact anadromous fish.

2.3.5 Direct and Significant Impacts on Coastal Resources

The welfare of anadromous fish populations in the NANA CRSA is closely related to the maintenance of important aquatic habitats which provide spawning, rearing, and overwintering areas. Potential land uses and development activities identified in Section 2.3.4 include specific actions which could significantly impact anadromous fish populations.

The management of coastal resources should protect the habitats which are critical to biological populations at all stages of their development. This ecosystem management of "full-cycle" overview of biological activities and populations recognizes that disturbance, habitat alteration, or impeded access to critical use areas regardless of their location can eliminate or reduce a resource as effectively as direct impact to a population while seasonally utilizing nearshore marine waters. Detrimental effects of uses and activities include:

- surface run-off from disturbed areas or erodable soils
- removal of stream-side vegetative cover
- alteration of water flow, temperature, or water quality
- increased turbidity or sedimentation above seasonal ambient levels
- introduction of crude oil, petroleum products, or toxic substances
- interference with free movement and timely migration of adult or juvenile fish within and between seasonal use areas
- alteration of the physical integrity of spawning, rearing, or overwintering areas
- removal of water from overwintering areas used by fish or aquifers that replenish overwintering areas
- induced thickening of ice cover on overwintering areas by ice roads, snow removal, or vehicular traffic compaction
- reduction in the availability of preferred food organisms
- disturbance of the hydrologic equilibrium of watercourses
- blasting within or adjacent to aquatic habitats

- o thermal degradation of permafrost from vegetation clearing or stripping of the insulating organic mat
- o disturbance of stream banks, floodplains, or adjacent uplands which induces hydraulic or thermal erosion
- o disposal of overburden within stream floodplains
- o discharge of effluents from sewage treatment facilities, mining operations, or processing facilities

Due to the widespread distribution of spawning, rearing, and overwintering habitats for anadromous fish within the NANA CRSA and the interconnected network of migratory pathways utilized during seasonal movements between use areas and marine or estuarine waters, essentially all watercourses and associated lakes, springs, and wetlands contribute to the presence and maintenance of anadromous fish habitats. Significant disturbance or alteration of the quality, quantity, or seasonal flow of stream waters supporting any vulnerable life history activity of anadromous fish has the potential to adversely impact the populations or productivity of anadromous fish, if not properly mitigated. Wetlands and watercourses which do not directly provide habitat are often important in the maintenance of flow and water quality for downstream habitats utilized by anadromous fish and waterfowl (Murphy et al. 1984, Lloyd 1985, Elliott and Finn 1984).

Although development activities and uses may occur in areas removed from direct association with anadromous fish habitats, the adverse effects could be transported by surface water flows to drainage channels which ultimately lead to vulnerable use areas for anadromous fish. The impacts of greatest concern are untimely increases in stream turbidity or sediments (Hall and McKay 1983, Bowden and McGinnis 1983, Lloyd 1985) and the introduction of toxic or harmful pollutants (Metsker 1982). These impacts could be transported by flowing waters for a significant distance from the activity site.

Turbid waters induced by development activities have been reported to decrease water clarity up to 100 miles downstream from the site of

introduction (Townsend 1983). Suspended solids and turbidity from placer mining operations in the Chatanika River system could still be discerned 25 miles downstream from the source of disturbance (Toland 1983). Turbid waters attributable to mining activities in a tributary of the George River were observed to extend 12 air miles downstream before water clarity showed noticeable improvement (Lloyd 1983). Ott (1984) noted turbidity levels which can adversely affect photosynthetic activity, invertebrate productivity, water temperatures, and rearing and feeding of anadromous fish at distances from 26 to 35 miles downstream from placer mining activities.

Steep topography and high gradient streams in some areas within the NANA CRSA coastal boundary increase the potential for transported sediments and turbidity effects to be carried significant distances from the area of disturbance. Additionally, uses or activities in upland areas removed from anadromous fish habitats can also impair the viability and function of spawning, rearing, and overwintering habitats if waters which supply these habitats are diverted, dammed, removed, or seasonally altered.

Chapter D of Volume 2 provides a detailed analysis of development activity impacts and the sensitivities of fish and aquatic habitats in the NANA CRSA. It should be recognized that anadromous fish are present in aquatic systems of the NANA CRSA coastal area year-round, but that certain life stages are more susceptible than others to the impacts of specific uses and activities. Development activity impacts of special concern to anadromous fish resources within and adjacent to the coastal boundary of the NANA CRSA are summarized below:

Alteration of Aquatic Habitats

Aquatic habitats important to anadromous fish can be adversely affected by transportation systems, utility rights-of-way, facility sites, floodplain material sites, solid waste and overburden disposal sites, construction camps, erosion control structures, and the alignment of roads and pipeline rights-of-way. Impacts attributable

to these activities can include destruction of stream and associated wetland habitats (Pamplin 1979), interference with fish migration and habitat access, and loss of habitat function due to stream channel modifications.

Permeable gravels and continuous winter flow necessary for spawning habitat are adversely impacted by sedimentation (filling of the intergravel spaces, smothering of eggs), channel changes and diversions (discontinuous flows or changes in channel conformation and velocity), and interference with winter water flow (floodplain mining, pipeline trenching). Spur dikes, channel plugs, and guide banks constructed to control erosion can inhibit fish access to side channel spawning areas or dewater these habitats. Improper siting, design, or installation of drainage structures such as culverts can impede fish migrations or block access to rearing, spawning, or overwintering areas. Ice roads and ice bridges can impact overwintering areas through the removal of insulating snow cover, thereby increasing the thickness of ice and reducing the depth of water in overwintering pools. Arctic char are particularly vulnerable to disturbance of overwintering areas since adults, juveniles, and incubating eggs may all be present in restricted areas of freshwater systems during this period of the year. Where winter water resources are limited, important overwintering areas or aquifers that support spawning areas with incubating eggs can be dewatered by water removal activities.

Development activities which require construction pads and all-season roadways over permafrost terrain often necessitate mining of large quantities of construction materials, including sand and gravel (Burger and Swenson 1977). Due to difficulties associated with mining in permafrost soils, these materials are most commonly accessible in braided river systems or abandoned floodplain benches adjacent to watercourses. Excavation in active floodplains can result in the direct loss of incubating eggs of anadromous fish, destruction of spawning areas, encouragement of "aufeis" (induced icings), and loss of rearing habitat (Woodward-Clyde Consultants 1980). Excavated pits and channels can reduce water depth during low flow periods and create depressions which can trap fish.

A study of potential transportation systems in the NANA CRSA which could be associated with mineral development activities (Louis Berger and Associates, Inc. 1981) recognized that the possible effects of roadways, pipelines, or railways on anadromous fish habitats could be moderate to severe when considering physical barriers, habitat alteration, changes in water levels, stream disturbance, and pollution.

Turbidity and Sedimentation

The quality and productivity of anadromous fish habitats and tributary waters can be adversely affected by sedimentation and turbidity which exceeds ambient conditions or that which is seasonally introduced during periods of highwater clarity and low suspended sediment levels. Instream activity and surface-disturbing activities adjacent to drainage channels can increase downstream turbidity (Bowden and McGinnis 1983, Lloyd 1985) and decrease production of aquatic macroinvertebrates (Hall and McKay 1983), an important food source for rearing salmonids. Sedimentation of spawning areas can eliminate spawning habitats or increase the mortality of incubating fish eggs and alevins by decreasing the permeability of spawning gravels (Hall and McKay 1983). Elevated turbidity levels can also increase stream temperatures, reduce photosynthetic activity, subject fish to physiological stress, impair recreational and subsistence harvest activities, and reduce the efficiency of fishery survey and management techniques (Lloyd 1985, Townsend 1983, Hall and McKay 1983, Bowden and McGinnis 1983, Schneiderhan 1982).

Hydraulic and Thermal Erosion

Hydraulic erosion can result from clearing and stripping of vegetation or the surface organic mat, altered surface water flow, exposed cuts and fills, drainage from roadways and facility pads, overland travel by vehicles and equipment, or damage to the insulting organic mat in permafrost areas. Thermal degradation of permafrost can also be a problem where gravel workpads or road embankments intercept sheet flow

and concentrate the runoff in drainage channels underlain by frozen soils which are not thaw stable. Hydraulic or thermal erosion problems can be particularly detrimental where fine-grained soils increase turbidity or sediment deposition in adjacent watercourses.

Blasting

Explosives may be used within or adjacent to aquatic systems for construction projects, seismic testing, and mining. Fish are adversely affected by shock waves generated by high explosives (Sundberg 1984, Hubbs and Rechnitzer 1952). Factors which influence the severity of the impact include the type of explosive, size of charge, distance to fish resource, fish species and age (eggs, juveniles, adults), blasting medium (water column or adjacent rock/soil), water depth, and presence of ice. The major cause of injury to fish from blasting shockwaves results from rupture of the swim bladder which is very sensitive to rapid changes in pressure. Controlled tests have indicated that a peak pressure of 40 to 50 pounds per square inch (psi) from a high explosive charge is usually fatal to adult fish with swim bladders (Hubbs and Rechnitzer 1952). A peak pressure as low as 2.7 psi will kill juvenile salmon (Rasmussen 1967). Salmon fry that have not yet developed swim bladders are less vulnerable to damage from blasting than are juvenile salmon (Falk and Lawrence 1973).

Discharge of Effluents, Pollutants, and Toxic Substances

Activities and uses within a watershed which may contact surface drainage channels or groundwater aquifers have a high potential for affecting the freshwater system of the drainage basin in which they are located. Potential effluents and pollutants from development activities include crude and refined hydrocarbons, dissolved metals, pesticides, chemicals, and sewage. Construction or mining projects which require camps, fuel storage, sewage treatment facilities, or processing facilities are potential sources of effluents and pollutants which could adversely impact anadromous fish waters.

Toxic materials could also be introduced to waters used by anadromous fish from mining activities where heavy metals are encountered with the target mineral or toxic substances are used for processing or refining. Heavy metals that could be introduced to aquatic environments from surface-disturbing activities such as mining include iron, cadmium, tin, antimony, aluminum, manganese, mercury, arsenic, and selenium (Metsker 1982). Some heavy metals are bioaccumulative, concentrating in living tissues with subsequent impacts to the living organism. Since some toxic substances and heavy metals may be dissolved in the water column and not just transported, adverse effects could occur a significant distance from the source of pollution.

Because of their widespread use and transport, hydrocarbon products (crude oil, fuel oil, lubricants) are the pollutants most likely to be associated with development activities in the NANA CRSA. Impacts to anadromous fish and use areas from hydrocarbon spill incidents could be acute (e.g. catastrophic event such as an oil pipeline rupture) or chronic. Acute oil pollution often results from an accident or natural hazard. Chronic pollution often goes unnoticed for long periods and can be a source of significant impact if undetected. For anadromous fish species that require two to seven years to complete a life cycle, an extended period of time can pass after a pollution incident before effects are noticed. Chronic pollution can also induce sublethal effects such as avoidance behavior or tainting. Eisler (1973), Tsai (1975), and Malins (1977) provide reviews on the lethal and sublethal effects of many pollutants on anadromous fish and invertebrates.

2.4 COASTAL BOUNDARY COMPATABILITY

The guidelines for district coastal management programs (6 AAC 85.040 (e)) require that the coastal area boundary of the NANA CRSA be sufficiently compatible with those of adjoining areas (North Slope Borough to the north and Bering Straits CRSA to the south) to allow consistent administration of the Alaska Coastal Management Program.

The North Slope Borough coastal area shares a common boundary with the NANA CRSA near Singoalik Lagoon adjoining the Chukchi Sea. The Borough's coastal area boundary in this location encompasses the interim coastal boundary and habitats which support anadromous fish resources in the Kukpuk River drainage. Although the objectives for protection of coastal resources important to the residents of the region are similar for the North Slope Borough and NANA CRSA coastal areas, topographic features of the Lisburne Peninsula and the proximity of higher elevation uplands adjacent to the coastline indicate a more limited coastal influence north of Cape Seppings. South of this point, the topography of the land changes to broad river valleys and the southern foothills of the Brooks Range in the NANA CRSA. In this area, coastal influence and the distribution of coastal resources (i.e. anadromous fish habitats) extend further inland in association with major river systems of the Kivalina, Wulik, and Noatak Rivers. Since the objectives for protecting marine coastal waters and their resources are similar for the NANA CRSA and the North Slope Borough, the adjoining coastal area boundaries are compatible for administration of the Alaska Coastal Management Program.

The proposed coastal area boundary of the Bering Straits CRSA adjoining the southwest boundary of the NANA CRSA extends inland from the Chukchi Sea coast approximately 40 miles to the vicinity of the Humboldt Creek intersection with the common CRSA boundary. In this area, the NANA CRSA coastal area extends to the CRSA boundary to encompass aquatic habitats important to anadromous fish. Since the objectives and resource protection concerns for both the NANA CRSA and the adjoining Bering Straits CRSA are similar in this area, comparable levels of concern and protection are provided, particularly where upstream portions of drainages originate in the Bering Straits CRSA and flow through the NANA CRSA to discharge into southern Kotzebue Sound. The coastal area boundaries of the NANA and Bering Straits CRSA districts are therefore compatible for purposes of administration of the Alaska Coastal Management Program.

2.5 CONCLUSION

The NANA CRSA coastal zone boundary includes all lands and waters within the district that drain into Kotzebue Sound and adjacent nearshore waters of the Chukchi Sea, exclusive of the watershed of the upper Noatak River east of Range 6 West and north of the southern boundary of the Noatak National Park and Preserve. The NANA CRSA coastal area extends beyond the ACMP interim coastal boundary to ensure comprehensive management of all uses and activities which may have a direct and significant impact on marine and estuarine waters and the living resources which depend on these waters.

Recent studies and observations have shown the importance of maintaining the hydrological integrity of Arctic and subarctic aquatic ecosystems (Elliott and Finn 1974, Murphy et al. 1984, Lloyd 1985). Considering the widespread distribution of anadromous fish within the NANA CRSA, essentially all watercourses and associated lakes, springs, and wetlands contribute to the maintenance of anadromous fish habitats. Significant disturbance to or alteration of the quality, quantity, or seasonal flow of surface waters supporting anadromous fish habitat has the potential to directly and significantly affect fish populations or their productivity. Anadromous fish are present in freshwater systems of the NANA CRSA year-round, but certain life history stages are more susceptible than others to the impacts of specific uses and activities. Impacts of greatest concern include untimely increases in stream turbidity or sediments, and the introduction of toxic or harmful pollutants to aquatic systems. These waterborne impacts (e.g. turbidity) can be transported a significant distance from their source to important anadromous fish habitats (Townsend 1983, Ott 19784, Toland 1983). Furthermore, uses and activities in upland areas spatially removed from anadromous fish habitats can directly and significantly impair the viability of spawning, rearing, and overwintering habitats if waters which supply these habitats are diverted, dammed, withdrawn, or seasonally altered.

Based on experience with the trans-Alaska pipeline, Pamplin (1979) recommended "comprehensive, interdisciplinary, pre-construction planning" for future projects which occur in the Arctic. The federal Coastal Zone Management Act of 1972 and the Alaska Coastal Management Act of 1977, as amended, were both enacted to encourage comprehensive and long-term management of the coastal zone. Federal and State regulatory programs are presently available in the NANA Region, however, they are neither fully coordinated nor comprehensive. The NANA CRSA Board, with the expressed objective of maintaining the biological productivity of anadromous fish streams and the hydrological integrity of their tributaries, desires to review plans for development throughout the district's watersheds for consistency with the enforceable policies of its coastal management program.

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3.0 RESOURCE INVENTORY AND ANALYSIS SUMMARY

3.0
RESOURCE INVENTORY AND ANALYSIS SUMMARY

In implementing their coastal management program the NANA CRSA Board will make decisions on the uses of coastal lands and waters. These decisions must be based on an understanding of the coastal resources within the region and uses and activities affecting those resources. Subsistence remains the highest priority of NANA residents. The location of intensive local use areas and timing of harvest are important considerations in coastal management decision making. Similarly the characteristics of fish and wildlife, coastal habitats, and air and water quality must also be considered. The location and significance of archeological, cultural and historical resources are a third category of coastal resource of concern to residents of the region.

The NANA region has great potential for resource and economic development. Major resources and economic activities include hardrock mining and coal, commercial fishing, tourism and recreation, government, timber, sand and gravel, and potentially, oil and gas. The local landowners, communities and the NANA CRSA Board support and participate in sound economic development that is balanced with other resource values.

Several other regional characteristics or uses and activities are key considerations in coastal management decisions. Land status affects the management and use of lands. The availability of transportation and utility systems are of importance to community growth and resource development. Finally, regional and village population employment and income, and economic characteristics have a bearing on the allocation of coastal resources.

The Alaska Coastal Management Program sets forth guidelines for preparation of a resource inventory and analysis:

- Resource Inventory. Each district program must include a resource inventory which describes, in a manner sufficient for program development and implementation, the following:

  1) habitats listed in 6 AAC 80.130 that are found within or adjacent to the district;

  2) major cultural resources that are found within or adjacent to the district;

  3) major land and water uses and activities which are conducted within or adjacent to the district;

  4) major land and resource ownership and management responsibilities within or adjacent to the district; and

  5) major historic, prehistoric, and archeological resources which are found within or adjacent to the district.

- Resource Analysis. Each district program must include a resource analysis which describes, in a manner sufficient for program development and implementation, the following:

  1) significant anticipated changes in the resource characteristics

  2) an evaluation of the environmental capability and sensitivity of resources and habitats, including cultural resources, for land and water uses and activities; and

3) an assessment of the present and anticipated needs and demands for coastal habitats and resources.

The information presented in this chapter is a brief summary of Chapters A, B, C, and D which represent the detailed resource inventory and analysis for the NANA CRSA program. The resource inventory and analysis is also supplemented by several 1:500,000 scale maps. The general categories of resource information are summarized below:

Subsistence

- residents use coastal lands and waters for subsistence harvest throughout the year and over the entire region. Intensively used areas are shown in Table 3.1 and on Map 8.

- the economic and cultural importance of subsistence will remain high

- subsistence activities very sensitive to disturbance and available for only a short time at specific areas include beluga whale and marine mammal hunting at Eschscholtz Bay and Sisoalik Spit; subsistence fishing for salmon, char, and sheefish; waterfowl hunting; and caribou hunting along the Noatak and Kobuk River drainages.

Coastal Habitats and Biological Resources

Waterfowl

- Waterfowl use the area for spring and fall staging, and for breeding and molting.

- The area supports the second highest breeding density in Alaska, and includes birds from all five of the North American flyways.

Table 3.1 Intensive Resource Use Areas

Area	Uses	Primary Communities
1. Goodhope Bay	Waterfowl hunting, sealing, egg gathering	Deering
2. Clifford Point and Rex Point	Spotted seal hunting, egg gathering	Deering
3. Pingo Point	Summer camps, berry picking, sealing	Deering
4. Inmachuk River	Fishing, moose hunting, trapping, gravel	Deering
5. Kugruk River	Waterfowl hunting, moose hunting, trapping	Deering
6. Lower Kiwalik River	Waterfowl hunting, berry picking	Deering, Buckland
7. Star Lake	Waterfowl hunting, berry picking	Deering, Buckland
8. Middle Buckland River	Waterfowl hunting, trapping, moose hunting	Deering, Buckland
9. Lower Buckland River	Fishing	Deering, Buckland
10. Headwaters of Buckland River	Trapping	Deering
11. Kauk River Drainage/Selawik Hills	Caribou hunting	Deering, Buckland, Selawik, Noorvik, Kotzebue
12. Eschscholtz Bay/Buckland River Delta	Summer camps, whaling, sealing, berry picking	Selawik
13. Tuklamaruk	Sheefish fishing, waterfowl hunting	Selawik

Table 3.1 (Continued)

Area	Uses	Primary Communities
14. Selawik River	Sheefish fishing	Selawik
15. Tagagawik River	Waterfowl hunting	Selawik
16. Selawik Wetlands	Caribou hunting, migration	Selawik
17. Fish River	Whitefish spawning	Selawik
18. Selawik Wetlands	Fish camps, fishing	Selawik
19. Singaruk River	Sheefish/whitefish fishing and spawning	Noorvik
20. Main Channel of the Lower Kobuk	Fishing, trapping, hunting	Noorvik, Kiana
21. Kaligurichcark River, Tutukshuk River, Kallarichuk River, Salmon River, Hunt River and Redstone River Drainages	Caribou hunting, fishing	Noorvik, Kiana, Ambler
22. Kiana Hills	Hunting/trapping	Kiana, Noorvik
23. Hockley Hills	Hunting/trapping	Noorvik
24. Middle Kobuk River - Squirrel to Ambler Rivers	Fishing, general subsistence	Kiana, Ambler
25. Lower Squirrel River, the North Fork and Omar River	Caribou and waterfowl hunting, trapping, summer camps	Kiana
26. Baird Mountains	Sheep and caribou hunting, trapping	Kiana
27. Lake Selby	Fishing, caribou hunting	Kobuk
28. Upper Kuikcherk River	Waterfowl hunting	Kobuk
29. Reed River Drainage	Caribou hunting, trapping	Shungnak

Table 3.1 (Continued)

Area	Uses	Primary Communities
30. Upper Kobuk Lowlands	Fishing, waterfowl and general hunting, trapping, berry picking	Shungnak, Ambler, Kobuk
31. Pah River Drainage	Berry picking, trapping, hunting	Shungnak
32. Upper Kivalina River	Fishing	Kivalina
33. North Kivalina Coast	Sealing and whaling, waterfowl hunting, berry picking	Kivalina
34. South Kivalina Coast	Sealing, waterfowl hunting	Kivalina
35. Kivalina and Wulik River Drainages	Caribou and moose hunting	Kivalina
36. Upper Agashashok River Drainage	Fishing, trapping	Noatak
37. Middle Noatak River	Fishing, caribou and moose hunting, trapping, berry picking	Noatak
38. Narvakrak Lake	Fishing	Noatak
39. Upper Noatak River Drainage	Caribou hunting	Noatak
40. Feniak Lake	Fishing	Noatak
41. Eli River Trapping Area	Trapping	Noatak
42. Maiyumerak Mountains	Sheep hunting	Noatak
43. Noatak Wetlands	Waterfowl and moose hunting	Noatak, Kotzebue
44. Maniilaq River	Trapping and caribou hunting	Kobuk, Shungnak

Table 3.1 (Continued)

Area	Uses	Primary Communities
45. Ambler, Shungnak and Kogoluktuk Rivers	Caribou hunting, trapping, berry picking, firewood	Shungnak, Ambler, Kobuk
46. Cape Krusenstern	Waterfowl hunting, trapping, whaling and sealing, berry picking	Kivalina, Noatak, Kotzebue
47. Sisoalik Spit	Waterfowl hunting, trapping, whaling and sealing, berry picking, and commercial fishing	Kotzebue, Noatak
48. Noatak River Mouth	Waterfowl hunting, commercial fishing, hunting	Kotzebue, Noatak
49. Upper Noatak River Trapping Area	Trapping	Noatak
50. Eschscholtz Bay	Summer camps, whaling and sealing, fishing, berry picking	Deering, Buckland, Selavik, Noorvik, Kotzebue
51. Selawik Lake	Fishing, sealing, waterfowl hunting	Selawik, Noorvik
52. Kobuk Lake	Fishing, sealing, waterfowl hunting	Kotzebue, Noorvik
53. Kobuk River Delta	Trapping, waterfowl and moose hunting, fishing	Noorvik, Kiana, Kotzebue
54. Cape Espenberg	Walrus and seal hunting	Deering, Buckland, Kotzebue

- River deltas, bays, and wetland areas along the lower Noatak, Kobuk and Selawik Rivers are particularly important areas.

Fish

- the major rivers of the region, the Noatak, Kobuk, Kivalina, Wulik, Selawik, Buckland, and Inmachuk, all support anadromous and freshwater fisheries.

- the Noatak River supports the major chum salmon population

- the Kobuk River supports the major sheefish population, with significant chum salmon also present

- the Kivalina River, Wulik River, and Noatak River and its tributaries, support large populations of Arctic char, the majority of which overwinter in the Wulik

- herring spawn in coastal waters of Kotzebue Sound.

Marine Mammals

- important marine mammals include beluga whale, bowhead whale, oogruk, and spotted and ringed seal

- Eschscholtz Bay is particularly important for beluga whale during June-July

- bowhead whale migrate and are harvested off of Kivalina

- seal, are present during spring and summer off of Cape Espenburg, the Choris Peninsula, and Cape Krusenstern.

Upland Mammals

- moose are present throughout the area, and are concentrated in the upper river valleys

- bears are present in coastal and upland areas, and concentrate along anadromous fish streams in the fall

- caribou migrate through the region between summer calving and wintering grounds, using traditional portages (Onion Portage) and river valleys (Hunt, Salmon, and Redstone)

- furbearers are present throughout the area and are heavily used for trapping

Air and Water Quality

- Air and water quality are generally good throughout the region, although some streams have naturally high heavy metal concentrations.

- Instream flow and high water quality are important factors in maintaining anadromous and freshwater fish populations.

- Placer mining and gravel mining operations are potential sources of water quality problems.

Archeological and Historical Resources

- The region has experienced continual occupation by Native people's dating back 10,000 years, and contains extensive cultural resources.

- Major cultural resource sites include Cape Krusenstern, the Noatak River Valley, Onion Portage, Eschscholtz Bay/Choris Peninsula, and Cape Espenberg.

Minerals

- The CRSA includes several large deposits of hardrock minerals and coal

- The Red Dog project is the only one in the development stage, although studies are ongoing in the Ambler/Bornite and Lik project areas.

- Development of sound transportation systems with minimal impact on fish and wildlife and on local residents is a major regional concern.

- Sand and gravel resources in the vicinity of communities have been identified for local use, however access to these resources are limited or complicated by land ownership; offshore dredging near Kotzebue can meet local needs but must be done in a manner to minimize impacts.

- Small scale placer mining operations are increasing in the southern portion of the CRSA, particularly around the Candle and Kiwalik areas.

Oil and Gas

- No oil and gas has been found to date in the region.

- The federal lease sale for Hope Basin was post-poned, but may be placed on the 1986-1991 five year schedule.

- The State Hope Basin Sale is scheduled for 1989.

Commercial Fishing

- Commercial fishing in Kotzebue Sound is concentrated at the mouth of Hotham Inlet, but occurs as far south as Cape Blossom, and west to Cape Krusentern.

- The Kotzebue area and Sisoalik Spit are important onshore areas for fish camps and support activities.

Land Ownership

- Major landowners in the region include three federal agencies (Park Service, U.S. Fish & Wildlife Service, Bureau of Land Management), NANA Corporation, KIC, and the State of Alaska.

- Land management and planning currently rests with individual landowners and agencies; coordination with adjacent owners lacks equal participation.

Transportation

- Transportation within the region is limited to water and air modes during the summer, and air and snow machine in the winter.

- Kotzebue provides the central port and air facilities for the region.

- Transportation facilities associated with resource development presents potential impacts to the people and fish and wildlife of the region. Currently the Red Dog project is working closely with affected villages to minimize impacts.

Geophysical Hazards

- Primary hazards in the CRSA include riverine flooding, storm surge flooding, wave and river erosion, sea ice, and permafrost.

- Communities are traditionally water-oriented and are often located in areas susceptible to river and storm surge flooding.

- Permafrost and erosion are serious constraints to be considered in the development of resources, communities, and transportation systems.

4.0 NEEDS, GOALS AND OBJECTIVES

4.0
NEEDS, GOALS AND OBJECTIVES

4.1 INTRODUCTION

Planning is an attempt to establish a course of action that will accomplish a predetermined set of wants and needs. Before actually planning for the NANA coastal region, however, one must:

- o understand and evaluate matters of regional and local importance and concern (needs);
- o understand and evaluate matters of state and national concern
- o identify the wants and needs of the people (goals); and
- o determine how to meet these goals (program objectives).

As part of the plan itself, the CRSA Board must determine how to meet the goals it has identified and then agree on specific ways to carry out the plan in order to reach these desired goals and objectives (primarily through the identification of special and restricted/sensitive use areas and policies).

This chapter summarizes important resource-related needs and presents a series of goals and objectives. It is important to remember that this district coastal management plan concentrates on natural resource-related issues. Other regional studies, such as the NANA Regional Strategy effort, address social and service issues. However, social, cultural, and other concerns will be dealt with to some degree in this plan.

Needs do not remain unchanged. As time passes, new needs will emerge which are not foreseen today. For example, little is presently known about proposed offshore oil and gas leasing in the Chukchi Sea, except that it will be a controversial event in the next decade. As proposed leasing schedules and exploration activities become known, more precise planning for such development can occur.

Similarly, current controversies may resolve themselves and no longer be issues of regional importance. The 1976 Gulf of Alaska OCS Lease Sale is one example. After intensive state planning to guide onshore impacts of OCS leasing, no petroleum was found.

Cancellation or postponement of proposed activities is another way of altering a need. The use of more appropriate technology sometimes satisfies the concerns raised by a particular development need. Hopefully, sensible planning can also bring out the best in a proposed development project, while still meeting socio-cultural concerns and protecting important traditional values. Thus, needs should not be viewed as final; rather, they will evolve and change over the years.

Before examining specific needs, goals and objectives, some working definitions of planning terms would be helpful:

- o Needs - Needs are matters of widespread public concern, open to discussion, debate and dispute. For this plan, needs should include planning for proposed resource-related events which may happen within the next ten years, in addition to ongoing activities and projects. Needs included in this chapter have met criteria that they be:

  - needs which specifically affect natural resources of the coastal area;
  - matters of regional importance, as opposed to strictly community concern;
  - concerns which affect the region now, and which will continue to do so during the next ten years; and
  - needs of direct importance to the CRSA Board.

- o Goals - Goals are broad statements of long-term results the region wishes to achieve. Goals represent the completion of a planning effort, and are major milestones in the life of a region.

- o Objectives - Objectives are actions which are taken in order to achieve a goal, or to bring a goal closer to reality. Objectives can be short-term, and are achievable within the context of the district coastal management plan or Regional Strategy plan.

- o Policies - Policies are working guidelines to achieve objectives. As the enforceable rules policies guide the actions of all planning agencies and organizations. The policies can be found in Chapter 6.0.

The overall goal of the NANA CRSA Coastal Management Plan is to provide a framework for the NANA people to better determine for themselves their quality of life and lifestyle options. For the coastal plan, this goal has several resource-related components:

- o Self-determination. Maximize local control of decisions which affect the coastal resources of the NANA region.

- o Subsistence Values. Preserve subsistence lifestyle opportunities by protecting physical and biological habitat in the region. Conserve the natural resources upon which the people of the region depends.

- o Economic Development. Maximize local lifestyle choices by ensuring compatibility of appropriate development efforts in the cash economy with the continued maintenance and enhancement of the traditional subsistence economy.

- o Lifestyle. Provide for maximum freedom of choice for NANA people to engage in traditional subsistence pursuits, the cash economy, and combinations of both.

- o Environmental Standards. Develop and implement clean air and water quality and land reclamation policies and standards prior to development of any major resource in the region.

- o Cooperative Planning. Develop and implement a process for cooperative planning and decision making for land and water uses that involves, as equals, state and federal agencies, local government, affected landowners, and the NANA CRSA Board.

4.2 NEEDS

Hardrock Mineral and Coal Mining and the Need to Protect Subsistence Activities, Biological Resources, and Lifestyle of Local Residents

Proposed hardrock mineral mining operations in the NANA Region appear to be imminent within the 10-year planning period in question. While these operations would bring many new employment opportunities to the region and its residents, potentially adverse consequences of this development must also be considered. This would include impacts to water quality and living resources which depend upon it.

As with all proposed development in the area, effective programs and policies must be adopted to ensure hiring, training and retention opportunities for area residents who desire employment. Transportation corridors must be carefully planned so as not to disrupt natural systems. Increased hunting pressures due to increased access to the area could adversely affect caribou, moose, sheep, bear and fur bearer populations if measures are not taken to limit access.

The Red Dog mining project has involved local residents throughout project planning. The focus of this involvement has been to minimize impacts and maximize benefits. As a result, policies have been agreed upon between affected landowners regarding the development of the transportation route. An Environmental Impact Statement on the Red Dog project was completed in 1984.

Other mining projects, such as those in the Ambler-Bornite area, are still in early stages of development. It is expected that projects will follow similar planning and local involvement processes.

In addition, several obstacles to this type of development exist in the NANA region. The area's remoteness, winter ice conditions that make ocean transport difficult, the lack of mining infrastructure, and competition from other more favorably located mining areas in other parts of the state and in other parts of the world serve to make development in the region a very expensive proposition.

Onshore and Offshore Oil and Gas Development

The tentative five-year oil and gas lease sale schedules published by the State of Alaska and the Bureau of Land Management's Upland Leasing office call at present for the leasing of a total of more than four million acres. This figure will be modified before the lease sales take place. Impacts may be felt in the existing biological, social, and subsistence systems in the region. Both onshore and offshore development activities may disrupt the biotic character of major and minor waterways in the region which will, in turn, disrupt fish and marine mammal populations upon which area residents depend for subsistence purposes. Additionally, new people in the region, although probably in low number, may cause problems with respect to housing, health, education and other related areas.

Under the current status of state lease sales, Lease Sale 45, in the waters of Kotzebue Sound, has been postponed until 1988 or 89. No other state sales have been proposed within the NANA Region. The federal Hope Basin Lease Sale has also been postponed and is not on the 1982-87 five year schedule. However, it is possible that the lease could be included in subsequent five year schedules.

Subsistence

Subsistence is one issue which interrelates with nearly all of the stated goals of the NANA Coastal Management Program. It intertwines

social, economic, and cultural values and activities of the region's residents. Moreover, it is an element of the people's way of life which they need to maintain in years ahead, regardless of the type of development and growth projected for their region.

Transportation

When resource development activities are introduced into the NANA region, critical transportation issues emerge: a conflict between use of the land for development purposes, on the one hand, and use for the production of wildlife resources, on the other hand. Surface transportation facilities - in particular roads, railroads, and pipelines - consume large amounts of wildlife habitat. Other potential impacts include disruption of migratory wildlife patterns, subsistence activities and community lifestyles. Indirectly, the consumption of water from streams and lakes (for slurry pipelines) and the extensive removal of gravel from streambeds, beaches and spits for the construction of roads and facilities may also disrupt or destroy habitat. Finally, development of an overland transportation system can spur further resource development. These tradeoffs need careful attention before any decisions for development are made.

Governance

Finally, the ability of the NANA region to administer locally its own coastal management plan and policies has become an issue. The federal Coastal Management Act of 1972 delegates policing powers in coastal management matters to the state when there are not sufficient local powers to implement the coastal management program in the unorganized borough. The lack of a local planning and zoning authority or police powers severely constrains the ability of NANA residents to implement the coastal management program, particularly on state and federal lands. Borough formation may be possible with the development of the Red Dog mine, providing a greater local role in planning and impelementation. Approaches to this and to the other issues raised in this paper, will be addressed in Chapter 7.0 of this Coastal Management Plan.

Tourism and Recreational Use

According to informal statistics provided by the U.S. National Park Service, tourism and recreational use in the NANA region are on the rise. Although many people in the region favor tourism in the larger Kotzebue area, some controversy exists as to whether recreational use should be encouraged in rural areas. Advocates of increased recreational use and visitation feel that a tourist industry is inevitable; as such, they feel it is better to maintain as much local control as possible over any recreational growth. Opponents of an increased tourism voice concern that subsistence resources and culture may be seriously impaired by expanded recreational use. In addition, many NANA residents simply do not want any form of tourism in their villages or in surrounding areas.

4.3 OVERALL GOALS AND OBJECTIVES OF THE NANA COASTAL MANAGEMENT PLAN

The overall goal of the coastal management plan is to provide a means for the NANA people to determine for themselves their quality of life and lifestyle options. For the coastal plan, this general goal has several resource-related components:

- Goal - Self-determination: Maximize local control of decisions which affect the coastal resources of the NANA region.

  Objective - Retain the Coastal Resource Service Area Board as the responsible entity for coastal management plan implementation.

  Objective - Seek legislation authorizing plan implementation authority and continued funding for CRSA's.

  Objective - Investigate the feasibility and viability of borough government incorporation as a means toward more

local control in coastal management planning and implementation.

Objective - Seek community assistance (e.g., adopt zoning ordinances) in preparing and implementing coastal management planning objectives.

Objective - Keep local legislators informed on local coastal management problems and needs.

Objective - Provide for a local "clearinghouse" to coordinate with the state in tracking all development permit applications, including in-region review of permits.

- Goal - Subsistence Values: Preserve subsistence lifestyle opportunities by protecting physical and biological habitats in the region. Conserve natural resources upon which the culture depends.

  Objective - Manage habitats to maintain subsistence resource populations at present or higher levels in order to guarantee their availability to local residents.

  Objective - Conserve required subsistence vegetation and other forage resources such as firewood and coal.

  Objective - Protect water quality, instream flow, and spawning areas required to support anadromous and freshwater fish used for commercial and subsistence harvests.

  Objective - Give subsistence use first consideration in evaluating land use development.

  Objective - Control competing uses so that they do not decrease the productivity of important subsistence resources.

Objective - Maintain access to and use of important subsistence resources.

Objective - Insure during critical fish and game shortages that local subsistence uses will be given the highest priority.

Objective - Monitor expected impacts from proposed land use and transportation developments in sensitive subsistence resource areas.

- Goal - Economic Development: Support appropriate types of development that would lead to increased local employment opportunities while ensuring compatibility with the continued maintenance and enhancement of the traditional subsistence economy.

Objective - Increase job opportunities for people in the region.

Objective - Enhance the region's self-determination and autonomy by shifting its current dependence on federal and state entitlement programs to a greater dependence on its own natural and human resources through appropriate development by assisting the villages in the permitting process.

Objective - Avoid scattered enclave development support facilities which require duplicative and uncoordinated regional infrastructure.

Objective - Encourage all resource exploration and development activities in the region, prior to construction, to submit and maintain current, a detailed work plan outlining proposed operating levels, support requirements, and time schedules of in-field operations.

Objective - Support development of local energy resources to reduce village household dependence on fuel oils.

Objective - Support development of local timber resources to meet the structural lumber demand in the construction of buildings and other facilities in the region.

Objective - Provide for village agriculture to replace certain food budget items bought outside the region.

- Goal - Lifestyle: Provide for maximum freedom of choice for people to engage in traditional subsistence pursuits, the cash economy, or combinations of both.

  Objective - Develop management programs that maintain subsistence resources at existing or higher levels.

  Objective - Seek work schedules that are compatible with subsistence lifestyle.

  Objective - Recognize the cultural heritage of the region in management planning and resource development activities.

- Goal - Environmental Standards: Develop and implement clean air and water quality and land reclamation policies and standards prior to development of any major resource in the region.

  Objective - Assure local participation in the planning and regulation of resource developers.

  Objective - Assist communities in developing local land use plans that incorporate adequate utility siting and environmental standards.

Objective - Maintain water quality and instream flow required to support commercial and subsistence fisheries

Objective - Assure the protection of critical habitats, migration corridors and fish and wildlife resources during resource development

Objective - Develop mitigation measures for impacts on fish and wildlife resources, critical habitat, and air and water quality.

5.0

USES AND USE AREAS

5.1 INTRODUCTION

This Chapter, along with chapters on policies and implementation, are among the most important in the NANA CRSA Coastal Management Program. It is in this chapter that criteria are presented for determining whether use and activities regarding land and water resources are subject to consistency with the coastal management program and what policies will apply. Other coastal management program elements--needs, goals, and objectives; coastal boundary determination; the resource inventory; the resource analysis; and public participation--were used to develop and support this chapter.

The Alaska Coastal Management Act provides guidelines to establish the Uses and Use Area Chapter. As stated in the ACMP regulations, a coastal management program must include:

- ...a description of the land and water uses and activities which are subject to the district program...(6 AAC 85.070);
- ...uses and activities that will be considered proper...and improper within the coastal area...(6 AAC 85.080); and
- ...a summary or statement of the policies that will be applied to land and water uses and activities subject to the district...(6 AAC 85.090).

In complying with these provisions, this chapter of the NANA Coastal Management Program:

- o lists subject uses;
- o describes proper and improper uses;
- o outlines uses of state concern;
- o describes lands within the boundaries of the NANA CRSA and that are affected by NANA CMP policies; and
- o describes the land/water use areas and associated values for which policies and enforceable rules will be applied.

The Uses and Use Area Chapter contains four elements, summarized below:

1. Subject Uses identifies those uses and activities in coastal lands and waters that must be consistent with the NANA CRSA Program.

2. Proper and Improper Uses refers to those uses and activities that are considered proper and improper within the NANA CRSA. Proper and improper uses are determined by conformance with policies and land use area classification.

3. Uses of State Concern are uses and activities of state and national interest which must be recognized by the NANA CRSA program. They cannot be unreasonably or arbitrarily restricted or excluded within the coastal area.

4. Land Use Categories are used to classify all lands and waters within the coastal boundaries. The purpose of these categories is to identify general use areas, and areas of special and restricted/sensitive use. They reflect specific resource values and concerns. Policies are developed and applied on the basis of land/water use category.

5.2 SUBJECT USES

Subject uses are defined as land and water uses which are subject to the NANA CRSA Coastal Management Program. Local coastal management districts have three general options in defining these uses:

- Identification of specific uses (boat harbors, washeterias, airstrips, gravel pits, etc.). This approach could overlook specific uses that may have an impact on the coastal area while unnecessarily including specific projects that may have no impact. It could create an unnecessary burden for both individual developers and the CRSA Board and staff.

- Identification of general use categories (coastal development, recreation, etc.). This approach provides leeway for the CRSA Board and staff to determine if a specific project has an impact on the coastal area. However, it still requires both the CRSA Board and developers to make a subject use decision on a project by project basis, which is time consuming.

- Use of existing state, federal, and local permit and approval systems to review significant projects. This approach is expected to allow for review of all projects that have a likelihood of impacting the coastal area. It has the advantage of not requiring unnecessary evaluation of activities not appropriate to coastal management. It uses existing permit and review systems and minimizes staff time.

This program has adopted the last option to define uses and activities subject to the NANA CRSA Program. Subject uses will be referred to as "uses and activities" throughout Chapters 5.0, 6.0, and 7.0.

Coordination between the NANA CRSA Coastal Management Program and the planning activities of state, federal, local governments and private entities is a concern of this program. In the past, planning

activities affecting the resources of coastal lands and waters have often been conducted with local involvement that is either limited or occurring late in the planning process. It is the desire of the NANA CRSA Board to participate in planning activities that affect coastal land and water resources.

5.2.1 State and Federal Approvals

The following uses and activities are subject to the NANA CRSA Program:

- All land and water uses within the coastal boundaries requiring approvals, including permits and certifications, from the state and federal government.

- All resource leasing activities, land disposals, regional and community facility plans, fire management plans and regional or area specific resource management plans.

5.2.2 Local Activities

Certain locally regulated uses and activities that may not require a state or federal approval are subject to the NANA CRSA Program. These include:

- All land and water uses and activities requiring rezoning, conditional use, and subdivision approvals from the City of Kotzebue.

- All commercial timber sales and harvests, except firewood and house log sales for personal use.

5.3 PROPER AND IMPROPER USES

Each district or CRSA program must identify uses and activities, including uses of state concern that are considered proper and improper within the coastal area. For the NANA CRSA Program the

definition of proper and improper use is determined by policy requirements and land/water use categories.

Proper and improper uses within land/water use areas identified in the NANA CRSA are defined below:

- o General Use and Special Use Areas

  All land and water uses and activities are considered proper as long as they comply with the general and specific use policies for those use areas.

- o Restricted/Sensitive Use Areas

  Each specific area may have specifically identified improper uses. All other uses are considered proper as long as they comply with the general and restricted/sensitive use policies for those use areas.

Specific Improper Uses are identified for each Restricted/Sensitive Use Area in Section 5.5.

5.4 USES OF STATE CONCERN

Uses of state concern are defined as "those land and water uses which would significantly affect the long-term public interest." They include:

- o uses of national interest, including the use of resources for the siting of ports and major facilities which contribute to meeting national energy needs, construction and maintenance of navigational facilities and systems, resource development of federal land, and national defense and related security facilities that are dependent upon coastal locations;

- uses of more than local concern, including those land and water uses which confer significant environmental, social, cultural, or economic benefits or burdens beyond a single coastal resource district;

- the siting of major energy facilities, activities pursuant to a state oil and gas lease, or large-scale industrial or commercial development activities which are dependent on a coastal location and which, because of their magnitude or the magnitude of their effect on the economy of the state or the surrounding area, are reasonably likely to present issues of more than local significance;

- facilities serving statewide or interregional transportation and communication needs; and

- uses in areas established as state parks or recreational areas under AS 41.20 or as state game refuges, game sanctuaries or critical habitat areas under AS 16.20.

Section 46.40.070 (c) of the Alaska Coastal Management Act describes what must be done before the Alaska Coastal Policy Council can approve a restriction or exclusion of a use of state concern. The council must find that:

- the NANA CRSA Board has consulted with and considered the views of appropriate federal, state, and regional agencies;

- the NANA CRSA Board has based such restriction or exclusion on the availability of reasonable alternative sites;

- the NANA CRSA Board has based such a restriction or exclusion on an analysis that shows that the proposed use is incompatible with the site, and

- the restriction is not unreasonable or arbitrary.

A number of state agencies have identified uses of state concern which are within their area of responsibility. The following is a list of those state concerns.

Department of Transportation and Public Facilities (DOT/PF): DOT/PF has not identified site specific areas of the NANA region as uses of state concern. They have, however, listed transportation facilities mentioned in Coastal Policy Council Resolution #13 as uses of State Concern that include:

> "Capital projects that have statewide, interregional and inter-district uses which impact the state's transportation system including highways, roads, trails, railroads, pipelines, airports (for land and sea plans), the Marine Highway System (ferries, docks, piers, or terminals), boat docks and harbors."

Department of Fish and Game (ADF&G): ADF&G has identified three major uses of state concern under their purview that are located in the NANA region. They include:

- conservation of anadromous fish waters;
- harvest of fish and wildlife; and
- the research, management and enhancement of fish and wildlife;
- conservation of state game areas, critical habitat areas and sanctuaries.

ADF&G has identified five fisheries research, management or enhancement sites within the region. They are as follows:

- Noatak River Research Headquarters/Sonar Site;
- Kobuk Lake Camp;

- o Squirrel River Counting Tower;
- o Kugruk Lagoon Camp; and
- o Sikusuilaq Spring Hatchery.

Department of Natural Resources (DNR):

DNR has identified several uses of state concern that may occur in the NANA region:

- o The utilization, development and conservation of state energy resources (such as State Oil & Gas Lease Sale 45-Hope Basin).

- o Siting of major energy facilities.

- o The utilization, development and conservation of all state minerals and materials (such as the Ambler mining district).

- o Large scale industrial and commercial development (associated with state resource development).

- o Transportation facilities associated with state resource development (such as any proposed access to the Ambler mining district).

- o The utilization, development and conservation of all land and waters belonging to the state (such as any future land disposal, tideland leases associated with the Red Dog port facilities, etc.).

- o The utilization, development and conservation of all state forest resources.

- o Management of state historic, prehistoric and archaeological resources.

5.5 LAND/WATER USE AREAS

The land use classification and the policies that follow are developed from previous elements of the NANA CRSA Coastal Management Program: specifically the Needs, Goals and Objectives Chapter and the Resource Inventory and Analysis Chapters. In the first chapter, local concerns regarding resource value and use were identified, as were concerns about potential impacts from resource development activities and transportation. Goals and objectives for the management of resources and activities are also presented. The Resource Inventory and Analysis Chapters identify resource values, resource utilization, potential development activities, resource sensitivity to change, and projected changes and trends in resource use and activities. All this information forms the basis for developing land use classifications and assigning specific areas to these classifications. The purpose of the land use classification is to develop corresponding policies to ensure that uses and activities take into account the resources of each area.

Four categories of land/water use have been selected: General Use, Special Use, Restricted/Sensitive Use, and Areas Meriting Special Attention (also see Chapter 8.0 Areas Meriting Special Attention). These areas are shown on Map 1. The purpose of each category is described below:

Additional objectives of the land/water use categories are to 1) distinguish between small-scale community related development activities (i.e. transportation, gravel extraction) and larger resource/transportation development with potential regional impacts and 2) distinguish between existing development projects (i.e. the Red Dog Transportation Corridor) and future resource development opportunities. This is accomplished through the use of the Special Use Area classification for existing,large-scale development, and establishing a process for classifying future large scale development as Special Use Areas. Small-scale community-related development is addressed under General Use Policies.

5.5.1 General Use Areas

The majority of coastal lands and waters within the NANA CRSA Coastal Management Program lie within the General Use Area. While this area may contain resources used by local residents or of importance to the state and federal management agencies, they can be managed using the general policies. They do not require designation as Special Use Areas, Restricted/Sensitive Use Areas or AMSA's. All areas not specifically classified as Special Use, Restricted/Sensitive Use, or AMSA are considered to be in the General Use Area.

The policies guiding resource use and activity in the General Use Area are considered to be minimum standards that must be met and therefore apply within the coastal boundaries. These policies are presented in Section 6.0.

5.5.2 Special Use Areas

The Special Use Area classification is used for two purposes:

- to guide uses and activities on those lands and waters (including state waters) which may need special protection for biological, subsistence and cultural resources, and

- to guide uses and activities on lands and waters which have been or may be important for major resource and transportation development with the potential for regional impacts. This includes energy facilities, mining, timber, land disposals, and transportation.

This classification is applied to specific areas and activities in order to develop appropriate policies, which appear in Chapter 6.0.

The following Special Use Areas have been identified and are described in this plan:

Sisoalik Spit
Cape Krusenstern
Kobuk/Selawik Lake
Cape Espenberg
Kobuk River Delta
Selawik River Delta
Salmon River
Upper Selawik/Hunt/Redstone Rivers Caribou Migration Areas
Maniilaq River/Ambler River Lowlands Area
Pah River Trapping Area
Red Dog Mine Transportation Corridor
Inmachuk River
Lower Buckland River
North Fork Squirrel River
North Kivalina Coast

1. Sisoalik Spit

The Sisoalik Spit is a special use area requiring additional protection because of subsistence use, cultural resources, and biological resources.

Sisoalik Spit is an important spring-summer subsistence site for residents of several NANA region villages. Subsistence camps are established each year to harvest resources, which include ringed seal, beluga, fish, and berries. Waterfowl hunting occurs in Paul's Slough, and throughout the delta area. The spit is heavily used from June to freezeup (usually in mid-September). Much of the commercial fishing in Kotzebue Sound takes place from summer camps in the Sisoalik Spit Area. Muskrat are trapped in the fall.

The spit has supported subsistence use by region residents for thousands of years. It is a trade fair site dating back to prehistoric times, where local residents traded with people from far outside the

region. Several cultural resource sites are located within the Sisoalik Spit Special Use Area.

The lagoons in the Sisoalik Spit Area provide important spring feeding and staging for waterfowl, particularly brant. Aquatic vegetation lifted from the bottom of Sisoalik Lagoon by ice during breakup is heavily used by waterfowl in early spring. There are two identified arctic tern nesting colonies within the area and glaucous gulls are a common inhabitant. The lagoons provide shorebird feeding and staging habitat in late July and August (Dames and Moore 1983, Uhl, pers. comm. 1983). Sisoalik Lagoon is considered an important rearing area for juvenile sheefish. Whitefish and herring also rear near Sisoalik Spit (Alt pers. comm. 1983, Whitmore and Bergstrom 1983).

Although it is an important use area for the entire region, the villages of Noatak, Kiana, Noorvik, Kotzebue, and Buckland use the area intensively. Buckland in particular gets the majority of its seal oil from seals harvested at Sisoalik Spit.

Resources and Values:

- o subsistence use - egg gathering, waterfowl hunting, summer fish camps
- o biological resources - waterfowl nesting, molting, and spring-fall staging; seabird colonies, fish rearing, marine mammal habitat
- o commercial fishing - summer fish camps, set gill nets
- o cultural resources - prehistoric trade fair site, subsistence camp use, specific cultural resource sites

2. Cape Krusenstern

Cape Krusenstern is a special use area requiring additional protection for subsistence use and cultural resources.

Cape Krusenstern is an important spring-summer subsistence use area for residents of Kivalina, Noatak, and Kotzebue. Spring sealing takes

place in offshore leads. During the summer, the camps are established to harvest berries and plants.

The Cape Krusenstern area has been continually occupied by Native people over several thousand years. This legacy of continued use and the numerous cultural resource sites contributed to the designation of the Cape Krusenstern National Monument.

Seals are present in offshore leads during the spring. Cape Krusenstern has been identified as an important arctic tern nesting site. The Cape Krusenstern area is used by waterfowl during fall migration. Species present may include brant, Canada geese, northern pintail, tundra swan and oldsquaw. The area includes nesting colonies for both arctic tern and glaucous gulls. Shorebirds such as sandpipers, phalaropes and plovers move into coastal lagoons in late July and August after breeding in the high arctic (Dames and Moore 1983, Gabrielson and Lincoln 1959). Whitefish (least cisco, Bering cisco and humpback whitefish) are found in Cape Krusenstern Lagoon (Uhl pers. comm. 1983). Herring have also been reported to spawn in the lagoon (Whitmore and Bergstrom 1983).

The villages of Kivalina, Noatak, and Kotzebue use the Cape Krusenstern area.

Resources and Values

- o subsistence use - berries, other roots and plants, summer camps
- o cultural resources - high density cultural resource sites
- o biological resources - arctic tern nesting site offshore marine mammal habitat, waterfowl staging (fall), fish spawning and rearing

3. Kobuk/Selawik Lakes

The Kobuk/Selawik Lakes form a special use area requiring additional protection for subsistence use and biological resources.

Both lakes are used year around for subsistence activities by residents of several villages. During the spring-summer season, sheefish hooking and sealing are the primary activities. Geese hunting occurs on Selawik Lake, and both lakes are extremely important for sheefish hooking.

Up to 25,000 pounds of sheefish are commercially harvested in Kotzebue Sound and Hotham Inlet. Herring, which represent a potential commercial fishery, also spawn in the special use area and represent a potential commercial fishery.

The Kobuk/Selawik Lakes are also important for biological resources. Seabirds and waterfowl found in habitats surrounding Kobuk/Selawik Lakes use the lake primarily for feeding on many fish species found in those waters. The lakes are also an extremely important fish rearing habitat. Species found include salmon, sheefish, whitefish (sp.), Arctic char, and Northern pike, although juvenile salmon are limited to Kobuk Lake. During the ice-free season, juvenile sheefish are widespread throughout the area as are feeding whitefish (humpback whitefish, broad whitefish, least cisco, and Bering cisco). Northern pike feed, rear, and overwinter here. Sheefish overwinter in the lakes, along with some species of whitefish. Arctic char use the lakes during their migrations. Adult chum and pink salmon migrate through Kobuk Lake in July and August on their way to spawning sites in the Kobuk River. Herring enter Kobuk Lake in late May and early June. Spawning coincides with breakup. Herring leave Kobuk Lake after spawning, then return in the fall.

Villages that intensively use the area include Kiana, Noorvik, Selawik, and Kotzebue.

Resources and Values

- o subsistence use - sealing, sheefish hooking (winter)
- o commercial fishing - sheefish

- o biological resources - sheefish overwintering habitat, juvenile salmon rearing, adult salmon migration, herring spawning, spring-fall waterfowl staging

4. Cape Espenberg/Goodhope River Delta

Cape Espenberg/Goodhope River Delta is a special use area requiring additional protection for subsistence uses and biological resources.

Subsistence uses of the area include marine mammal hunting, bird hunting, and egg gathering. During the winter and early spring, walrus and ringed and bearded seal are hunted in offshore leads. A group of small offshore islands in the special use area are used during the summer months for spotted seal hunting, egg gathering, and for bird hunting in the fall.

The important biological resources at Cape Espenberg include marine mammals and sea birds. The cape is the largest known spotted seal hauling out area in the Hope Basin, normally occurring in late summer and early fall. Ringed seal, bearded seal, and walrus are found off Cape Espenberg during winter and early spring. Seabirds and waterfowl also nest at Cape Espenberg and the small islands immediately offshore including Glaucous gulls, Arctic terns, brant, cranes and common eider. As part of fall staging, ducks concentrate in the Cape Espenberg and the Goodhope River Delta area during August and September. The Cape Espenberg special use area is used by the villages of Buckland and Deering.

Resources and Values

- o subsistence - marine mammal hunting, bird hunting, egg gathering
- o biological resources - seal haul out areas, fall waterfowl staging, seabird and waterfowl nesting, marine mammal haulout

5. Kobuk River Delta

The Kobuk River Delta is a special use area requiring additional protection for subsistence activities and biological resources.
The Kobuk River Delta is an important year-round subsistence use area. Uses include waterfowl hunting, sheefish fishing, and trapping. Waterfowl hunting occurs in both the spring and fall; eggs are gathered during the summer. Village residents harvest sheefish throughout the year, hooking them through holes in the ice during the winter and early spring. Trapping is primarily a winter activity, where muskrat are trapped for their fur and as food.

The Kobuk River delta, with its many sloughs, lakes and ponds, is an important waterfowl use area. Ducks, geese, and swans nest in the area and it is used for fall staging. It and the Selawik River delta are the major waterfowl use areas within the NANA region.

It is also an extremely important fish habitat. Sheefish move into the main channels of the Kobuk during their migrations. The entire Kobuk River chum salmon population passes through the Kobuk Delta twice: once as adults on their upstream migration (during July and August) and again as outmigrating fry (in June and July). Arctic char also migrate in and out of the Kobuk River. The lowland lakes and ponds are inhabited by Northern Pike and whitefish sp., especially during the ice-free season. Burbot and grayling are particularly abundant here.

Villages intensively using the Kobuk River Delta include Kiana, Noorvik, and Kotzebue.

Resources and Values

- o subsistence use - sheefish hooking, waterfowl hunting
- o biological hunting resources - waterfowl nesting and molting, spring-fall staging, fish migration and feeding

6. Selawik River Delta

The Selawik River Delta is a special use area requiring additional protection for subsistence activities and biological resources. It does not include the village of Selawik.

The Selawik River Delta is an important year-round subsistence use area. Uses include waterfowl hunting, sheefish fishing, and trapping. Waterfowl hunting occurs in both the spring and fall; eggs are gathered during the summer. Village residents harvest sheefish throughout the year, hooking them through holes in the ice during the winter and early spring. The Tuklomarak Slough is particularly important for harvesting sheefish. Trapping is primarily a winter activity, when muskrat are trapped for their fur and as food.

The Selawik River Delta is one of the major waterfowl use areas in the NANA region. Ducks, geese, and swans nest and stage throughout the area. The Selawik Delta is more important as a fall staging area. Species utilizing the delta include tundra swans, American wigeons, white-fronted geese, and Canada geese. Sandhill cranes and a variety of shorebirds are also present here. Sheefish are an important resource of the Selawik River, moving into the main channels of the river during migration. Arctic char are found in the Selawik system but are not numerous. Northern pike, however, are found throughout the delta lakes and sloughs as are grayling and burbot. Whitefish are probably second only to sheefish as an important resource of the Selawik Delta.

Villages intensively using the Selawik River Delta include Selawik, Deering, and Buckland.

Resources and Values

- o subsistence use - sheefish hooking, waterfowl hunting
- o biological resources - waterfowl nesting and molting, spring-fall staging, sheefish migration and feeding

7. Salmon River

The Salmon River is a special use area requiring additional protection for subsistence uses and biological resources.

Important subsistence activities within the Salmon River area include fishing for salmon and whitefish; hunting for caribou, moose, and bear; and berry picking. Fishing is a summer/early fall activity, harvesting salmon prior to spawning and whitefish in conjunction with hunting. Hunting for caribou occurs in the fall during migration south to winter grounds. Moose hunting may occur in conjunction with caribou hunting or later in the fall. Berry picking is also a fall activity that may occur while hunting or fishing.

The important biological resources in the Salmon river include salmon, whitefish, caribou, bear, and river otter. Chum spawning occurs in the lower reaches in August; fry emerge from the gravel in late spring and migrate to coastal water in mid-June. Arctic char spawn throughout the system. Whitefish move upstream to spawn in September and October (Village Interviews, 1984). Fall migration of caribou to wintering areas south of the Kobuk River occurs from mid-August through October. The Salmon River is one of several drainages used as a migration route. Grizzly bear frequent the Salmon River during the period of Chum Salmon spawning. High densities of river otter are also found in the Salmon River drainage.

The Salmon River area is intensively used by residents of Kiana, Noorvik, Ambler, Shungnak, and Kobuk.

Resources and Values

- o subsistence - salmon and whitefish fishing, caribou and moose hunting, berry picking
- o biological resources - salmon, char and whitefish spawning; caribou migration route

8. Upper Selawik/Hunt/Redstone Rivers Caribou Migration Area

The Upper Selawik/Hunt/Redstone Rivers special use area requires additional protection for subsistence uses and biological resources.

As major caribou migration routes, these areas are very important for caribou hunting. Caribou migration to southern overwintering areas usually begins in mid-August and is complete by mid-October; hunting occurs during this period. Other subsistence activities are pursued during caribou hunting, and include fishing, moose and bear hunting, and berry picking.

The Upper Selawik/Hunt/Redstone Rivers are also used for the spring migration north to calving grounds on the North Slope. Spring migration begins in mid-March and can last through mid-June. Lead animals in the migration are often easily frightened, particularly at major river crossings. However, once the crossing has begun, the rest of the herd are less sensitive to disturbance. Nesting waterfowl are found throughout the Selawik River drainage and in the lower reaches of the Hunt and Redstone Rivers. Arctic char are an important species in the Hunt and Redstone Rivers. Grayling are present in all three areas. Chum salmon spawn in the lower Hunt and Ambler Rivers.

Although all residents use the special use area to a certain degree, the villages of Kiana, Noorvik, Ambler, Shungnak and Kobuk are the primary users.

Resources and Values

- o subsistence - caribou hunting
- o biological resources - major caribou migration pass between the Kobuk-Selawik River valleys and overwintering range to the south, waterfowl nesting, moose and bear habitat

9. Maniilaq River/Ambler Lowlands Area

The Maniilaq River/Ambler Lowlands area is a special use area requiring additional protection for subsistence uses and biological resources.

Subsistence uses of the special use area include hunting for caribou, moose, waterfowl, and trapping. Caribou are hunted during their fall migration (mid-August to mid-October) to wintering grounds. Moose hunting also occurs during the fall and into early winter. Waterfowl hunting is primarily a spring-summer activity; trapping for furbearers (beaver, otter, mink) is done in the fall and winter.

Important biological resources in the Maniilaq River/Ambler Lowland area consist of caribou, moose, waterfowl, and furbearers. Caribou use of the area during migration to wintering areas south of the Kobuk River. Lead animals are sensitive to disturbance, particularly at major river crossings. Once past, the rest of the herd is less sensitive to disturbance. Moose use river valleys for calving and for feeding; calving occurs in late spring (early June). Waterfowl utilize the Ambler Lowlands for nesting, although concentrations are less than at Kobuk and Selawik river deltas to the west. The area provides important habitat for beaver, otter, and mink. Sheefish and char are found in the Ambler River.

The Maniilaq River/Ambler Lowlands are intensively used by residents of Ambler, Shungnak and Kobuk.

Resources and Values

- o subsistence use - fishing, hunting, and important local resident trapping area
- o Caribou migration area, waterfowl nesting, furbearer habitat, black and grizzly habitat

10. Pah River Trapping Area

The Pah River is a special use area requiring additional protection for subsistence uses, trapping activities, and biological resources.

Resources and Values

- o subsistence use - fishing, hunting, and important resident trapping area
- o Caribou migration area, furbearer habitat, critical moose habitat
- o Critical Moose Habitat

11. Red Dog Mine Transportation Corridor

The Red Dog Mine Transportation Corridor special use area requires additional measures to allow for transportation activities while providing mitigation measures to protect subsistence uses and biological resources.

The corridor will be used to connect the Red Dog Mine site and its port facility via a gravel road. Some construction material, equipment and supplies will be trucked into the mine site from the port; ore concentrates and other materials will be trucked out to the port for marine transport.

Much of the transportation corridor borders important subsistence use areas. Moose are hunted north of the area in late fall and early winter. Furbearer trapping occurs during the winter. Caribou are also hunted in the vicinity of the road corridor during their fall migration to overwintering areas.

Resources of biological importance near the Red Dog Transportation Corridor include caribou, moose and waterfowl. Caribou pass through the corridor during fall caribou migration to wintering grounds to the south. Migration occurs from mid-August to late October. Waterfowl use the mouth of the Wulik River as a fall staging area.

The Red Dog Corridor special use area is used by residents of Kivalina and Noatak.

Resources and Values

- o major resource development/transportation - transportation corridor from Red Dog mine to a tidewater port location south of Kivalina
- o subsistence, resources - subsistence hunting, egg gathering, berries and plants
- o biological resources - caribou migration, moose habitat

12. Inmachuk River

The Inmachuk River is a special use area requiring additional protection for subsistence use and biological resources.

Subsistence uses in the special use area include fishing for salmon, char, and grayling. This river is heavily fished by Deering residents during the summer. It is also hunted for moose during the fall. Trapping is primarily a winter activity, when muskrat are trapped.

Wetland adjacent to the coast near the mouth of the Inmachuk River provide part of an important staging area for waterfowl in the spring. Wetlands along the lower reaches of the river are important use areas for waterfowl from the mouth of the Inmachuk upstream to the confluence with Cue Creek. Chum salmon, pink salmon, sheefish, Arctic char, and whitefish are present in the Inmachuk River. Chum salmon and Arctic char occur from the mouth to the headwaters. Important spawning areas for chum salmon are located in the middle reach of the river between Fink Creek and Iowa Creek. Pink salmon spawning areas are concentrated in the lower portion of the Inmachuk River close to the coast. The riparian willow shrub thickets along the floodplain provide an important source of browse for moose that winter in the area.

This area is intensively used by the people of Deering.

Resources and Values

- o subsistence use - fishing, moose hunting and trapping
- o biological resources - spring/fall waterfowl staging, chum and pink salmon spawning, high density moose area.

13. Lower Buckland River

The lower Buckland River is a special use area requiring additional protection for subsistence use, biological resources and cultural resources.

The lower Buckland River is used for a variety of subsistence activities. During the spring and fall, waterfowl are hunted. Seal hunting occurs during summer months, as does berry picking. Moose are hunted along the lower river during the fall.

During the spring, waterfowl stage in the wetlands and tideflats of the lower Buckland River prior to continuing their northward migration or dispersing to nesting habitats. Important summer use areas for waterfowl are present in the riparian wetlands along the Buckland River floodplain.

Chum salmon occur in the Buckland River from the mouth to the headwaters of the West Fork and east into the lower reaches of the Fish River. Spawning activity for chum salmon is concentrated in the mainstem of the Buckland River from Meinzer Creek upstream to Kilulikpuk Creek. Arctic char and whitefish are present throughout the Buckland River, but spawning locations for these species have not been documented.

The riparian willow thickets along the floodplain of the Buckland River and its tributaries provide an important winter browse habitat

for moose. Spotted seals are present in a high use area in estuarine waters near the mouth of the Buckland River. The area encompasses a consistently used winter range for caribou of the Western Arctic Herd.

Several historic and archaeological resource sites are located along the Buckland River.

This area is intensively used by the people of Buckland.

Resources and Values

- o subsistence use - waterfowl hunting, seal hunting, berry picking and moose hunting
- o biological resources - spring/fall waterfowl staging, chum salmon spawning, spotted seal and moose winter habitat
- o cultural resources - historical and archeological sites present

14. North Fork Squirrel River/Omar River

The North Fork Squirrel River/Omar River is a special use area requiring additional protection for subsistence uses, biological resources and cultural resources.

Subsistence uses in this area include fishing, hunting, and trapping. During the summer, salmon and char are harvested in both rivers. Waterfowl are hunted along the Omar during the fall. The entire area is trapped during the winter, although the area between the North Fork and the Omar is especially important.

Important summer use areas for waterfowl are present in the wetlands adjacent to the lower reaches of the Omar and North Fork Rivers. Chum salmon spawning areas are present in the Omar River upstream from its confluence with the Squirrel River. The presence of chum salmon in the fall also makes this area a high use habitat for grizzly bear feeding during this time of the year. The lower North Fork River and

all of the Omar River drainage provide important wintering habitat for moose in the region. The valleys of the Omar and North Forks Rivers provide important north/south migration corridors for caribou moving to calving and summering areas in the spring and returning to winter range in the fall. During some years, this area receives heavy use by wintering caribou.

The special use area includes several archeological and historic sites. Old sod homes are located along the mouth of the Omar River.

This area is intensively used by the people of Kiana, Noorvik, and Kotzebue.

Resources and Values

- o subsistence use - chum salmon and char fishing, waterfowl hunting, and winter trapping
- o biological resources - chum salmon spawning, waterfowl summer use areas, moose overwintering habitat, caribou migration routes.
- o cultural resources - archeological and historic sites present

15. North Kivalina Coast

The North Kivalina Coast is a special use area requiring protection for subsistence uses, biological resources, and cultural resources.

Important subsistence uses include support of marine mammal hunting, hunting for waterfowl, and berry picking. This coastline is heavily used for hunting ringed seal and bearded seal during the spring, for beluga whales during spring and summer, bowhead whales during the spring, and walrus during spring and summer. Polar bears are hunted in the spring during years of abundance. Waterfowl hunting occurs during the spring and fall, with berry picking in the summer.

The wetlands and tideflats adjacent to Kivalina Lagoon provide important spring and fall staging areas for migrating waterfowl, including pintail, wigeon, snow geese, brant, tundra swan, and shorebirds. The barrier island systems along the coast have also been identified as a high use area for Arctic terns.

Chum salmon and pink salmon occur in the lower Asikpak River, but the location of spawning habitat has not been documented. Herring are reported to spawn in the nearshore waters along the coast adjacent to Kivalina Lagoon. Kivalina Lagoon provides overwintering habitat for fish.

The occurrence of marine mammals within this area is closely associated with the presence of shorefast ice along the coast during the winter and the recurring polynya between Kivalina and Point Hope. During the winter, ringed seals utilize the shorefast ice for pupping; densities of 2.3 ringed seals per nautical square mile have been reported for this area. Bearded seals are present during the winter in association with flaws, leads, polynyas, and open water areas. Beluga whales may occur in the open leads along the coast as early as January and February due to the presence of a persistence popyna. During spring migration for beluga whales and bowhead whales, nearshore leads are commonly used as the animals move toward Point Hope and areas further north. During the summer, gray whales feed in the shallow water adjacent to the coast in this area. Spotted seals use the barrier island beaches and coastline as haul-out locations during the summer and fall; specific high-use locations have not been identified.

The special use area contains archeological sites and old graves.

This area is intensively used by the people of Kivalina.

Resources and Values

- o subsistence uses - hunting for ringed seal, oogruk, walrus, beluga whale, bowhead whale, and waterfowl; berry picking, char, salmon, and whitefish fishing; moose hunting
- o biological resources - spring/fall waterfowl staging, arctic tern nesting, herring spawning and fish overwintering, important marine mammal habitat salmon and char spawning, fish overwintering, moose winter habitat, caribou winter range
- o cultural resources - archeological and historic resources present

5.5.3 Restricted/Sensitive Use Areas

The purpose of the Restricted/Sensitive Use Area Classification is to protect extremely sensitive areas that are of great importance for subsistence use, cultural resource, and biological reasons. Development that does not support the primary values in these areas are considered improper and prohibited. This classification is applied to specific areas. Policies appropriate to the area and resource characteristics have been developed and appear in Section 7.0. As more is known about the land and water resources of the NANA CRSA, new Restricted/Sensitive Use Areas may be designated and appropriate policies developed.

The following Restricted/Sensitive Use Areas have been identified and are included in this plan:

Onion Portage
Eschscholtz Bay
Elephant Point/Choris Peninsula
Kobuk River Sheefish/Chum Salmon Spawning Area
Selawik River Sheefish/Whitefish Spawning Area
Wulik River Char Overwintering Area
Noatak River Chum Salmon Spawning Area
Upper Kivalina River

1. Onion Portage

Onion Portage is a Restricted/Sensitive Use Area requiring additional protection of subsistence use, cultural resources, and biological resources.

Onion Portage is one of the most important subsistence use sites in the NANA Region. It is a primary caribou hunting area for several villages during the fall caribou migration, partially because caribou converge at this point to cross the Kobuk River. From mid-August through mid-October, this area is extremely sensitive. Onion Portage is also an important site for sheefish gillnetting, which occurs during August as fish move upriver to spawn.

Use of the Onion Portage area by migrating caribou and the local residents who hunted them can be documented over several thousand years. This use has made Onion Portage one of Alaska's most important Arctic cultural resource sites. Archaeological resources at Onion Portages have provided an understanding of the development of several district Native cultures over time.

Onion Portage is biologically important as the major river crossing during the fall and spring caribou migrations. Between mid-August and mid-October, caribou migrating south to wintering areas converge from several tributaries and cross the Kobuk River at Onion Portage. The lead animals at the crossing are extremely sensitive to disturbance, which could result in a delay of crossing or a route change. Once the animals have started crossing, they are less sensitive to disturbance.

Waterfowl are found throughout the Kobuk River lowlands including the area within the Onion Portage Sensitive Use Area. The river contains chum salmon, sheefish, Arctic char, whitefish sp., grayling, and burbot. Important chum salmon spawning grounds are found above Onion Portage, just upstream of the Selby River. Salmon bound for these upriver spawning grounds enter the Kobuk River in July and August. Sheefish migrate through this stretch of river in September during

migration to their upstream spawning grounds. Since sheefish in the Kobuk River system spawn only from Ambler to the Selby River, it is critical that they are allowed to pass Onion Portage unimpeded. Arctic char and whitefish sp. are also known to spawn in the same area as sheefish.

While residents of the entire region use the area, Onion Portage is intensively used by residents of Kiana, Noorvik, Ambler, Kobuk and Shungnak.

Resources and Values

- o subsistence use - important fall caribou hunting area, sheefish seining
- o cultural resources - one of the major arctic archaeological sites in the world, National Register of Historic Places site
- o biological resources - important spring and fall caribou migration route, fish migration, waterfowl

2. Eschscholtz Bay

Eschscholtz Bay is a Restricted/Sensitive Use Area requiring additional protection for subsistence use, cultural resources, and biological resources.

Eschscholtz Bay is also one of the most important subsistence use areas within the NANA Region. Spring-summer uses include beluga whaling, seal hunting, egg gathering and berry picking. Buckland residents hunt for seals in the spring at Elephant Point and Chamisso Island. Beluga whale hunting involves residents of many villages, who set up hunting camps at Elephant Point. Whale hunting lasts from two to three weeks and peaks in mid-June. Smelt are harvested at the same time. Berry picking takes place from mid-August through mid-September.

Because of its traditional use for subsistence activities, Eschscholtz Bay contains several cultural resource sites. Elephant Point and the Choris Peninsula are particularly important within the special use area.

Eschscholtz Bay is important habitat for marine mammals, particularly beluga whale and spotted seals. Beluga whale enter the bay from the north in early June, and utilize the area primarily for feeding. Spotted seal are present throughout the summer, feed on smelt and herring in the bay, and use the shores for hauling out at Chamisso Island and Elephant Point.

Eschscholtz Bay is used for feeding by seabird species found in colonies at Chamisso Island and Elephant Point. The Buckland and Kauk River deltas are among the first to open in the spring and are, therefore, heavily used by migrating waterfowl. The Buckland River also contains white rainbow smelt. Adult chum and pink salmon pass through Eschscholtz Bay on their way to spawning grounds in the Buckland River and early summer migrations of herring, smelt, and char attract belukha whales to the area. Herring have been documented to spawn off Elephant Point.
Although Eschscholtz Bay is used by all residents of the region, it is intensively used by the villages of Buckland, Deering, Selawik, Noorvik, and Kotzebue.

Resources and Values

- o subsistence use - beluga whale hunting, egg gathering, summer camps, smelt harvesting
- o biological resources - important beluga whale and spotted seal summer use habitat, herring and smelt runs, salmon migration
- o cultural resources - historic/prehistoric beluga whale hunting area, traditional camp location

3. Elephant Point/Choris Peninsula

The Elephant Point/Choris Peninsula Restricted/Sensitive Use Area requires additional protection for subsistence, cultural resources, and biological resources.

This area is the site of summer subsistence camps along Eschscholtz Bay, one of the most important subsistence use areas within the NANA Region. Spring-summer uses include beluga whaling, seal hunting, egg gathering and berry picking. Buckland residents hunt for seals in the spring at Elephant Point. Beluga whale hunting involves residents of many villages, who set up hunting camps at Elephant Point. Whale hunting lasts from two to three weeks and peaks in mid-June. Berry picking takes place from August through mid-September.

Because of its traditional use for subsistence activities, Elephant Point and the Choris Peninsula are very important for cultural resources.

Eschscholtz Bay, Elephant Point, and the Choris Peninsula are important habitat for marine mammals, particularly beluga whale and spotted seals. Beluga whale enter the bay from the north in early June, and utilize the area primarily for feeding. Spotted seal are present throughout the summer, feed in the bay, and use the shores for hauling out at Elephant Point. Elephant Point has a documented Arctic tern colony. The Choris Peninsula is one of the most important seabird nesting sites in the NANA CRSA. Four documented colonies host thousands of glaucous gulls, horned puffins, black-legged kittiwakes, pigeon guillemots, black guillemots, tufted puffins, pelagic cormorants, and parakeet auklets. Most seabirds arrive at the colonies in late May or early June and remain until the young have fledged, generally by the end of August, before departing for the winter.

Although the Elephant Point/Choris Peninsula area is used by all residents of the region, it is intensively used by the villages of Buckland, Deering, Selawik, Noorvik, and Kotzebue.

Resources and Values

- o subsistence use - traditional summer camp location for beluga whale and seal hunting by villages of the region
- o cultural resources - historic and prehistoric camp location for beluga whale and seal hunting: specific cultural resource sites present
- o biological resources - beluga whale, seal haul out areas, sea bird nesting

4. Kobuk River Sheefish/Chum Salmon Spawning Area

The Kobuk River, sheefish/chum salmon spawning Restricted/Sensitive Use Area requires additional protection for biological resources. This area does not include the villages of Kobuk and Shungnak.

The Kobuk River supports a population of approximately 7,000 spawning sheefish. This represents around 75 percent of the NANA CRSA's total population of sheefish. Sheefish begin spawning in September, moving up the Kobuk to the area between the Ambler River and the Selby River. Spawning does not occur anywhere else on the Kobuk River. Eggs hatch from late February to April and the fry are washed downstream during spring floods where they rear in Kobuk and Selawik Lakes.
The area between Ambler and Selby Rivers is also inhabited by whitefish sp., burbot, and Arctic char. Least cisco is the whitefish species most common in this stretch of river. Fish move upstream to spawn in September and October. Arctic char also spawn in this area in the fall.

The Kobuk River supports the second largest chum salmon run in the NANA Region. Mean annual escapement is 31,000 fish but annual variation is significant (Bigler 1983). While chum salmon spawning areas on the Kobuk are much more widespread than sheefish spawning sites, important spawning grounds are found between the Selby River and Beaver Creek. Chum salmon that spawn in this area do not enter the Kobuk until August and are not on the spawning grounds until the

end of the month. While specific data on the Upper Kobuk River are not available, fry emerge from the gravel sometime in late spring and migrate to the coast in mid-June.

Resources and Values

- o biological resources - 75 percent of all Kobuk River Kobuk River sheefish spawning occurs in this area. The resources are of extreme regional subsistence and commercial fishing importance. Chum salmon and whitefish spawning occurs in this stretch of the river.

5. Selawik River Sheefish/Whitefish

The Selawik River Whitefish/Sheefish Spawning Restricted/Sensitive Use Area requires additional protection for biological resources.

As in the Kobuk River System, sheefish in the Selawik River spawn in a very discrete section of the river. Spawning occurs in a 10 mile stretch below Ingraksuksuk Creek in late September and early October. Up to 1,800 sheefish spawn in this area. Eggs hatch in late February to April and are swept downstream to Kobuk/Selawik Lakes during spring floods. Whitefish are also numerous in the Selawik River and spawn during September in generally the same area used by sheefish. Species of whitefish found in the NANA CRSA include humpback whitefish, broad whitefish, round whitefish, and least cisco. The Selawik River also supports grayling, burbot, and Northern pike. Salmon are not found in the Selawik River drainage.

Resources and Values

- o biological resources - primary spawning area for Selawik River system sheefish and whitefish.

6. Wulik River Arctic Char Overwintering Area

The Wulik River Arctic char overwintering area is a restricted/sensitive area requiring additional protection for biological resources.

Although the Wulik River has spawning populations of Arctic char, it is perhaps even more important for its overwintering habitat. Char from the Wulik, Kivalina, and Noatak rivers overwinter in the Wulik River; between 85,000 and 225,000 Arctic char are thought to overwinter here. The Wulik spawning population is estimated to be about 1,000 fish. Char return to the streams in which they were hatched to spawn but apparently do not overwinter in the same stream. Spawning occurs from late July to September and young char remain in the streams for two to four years, at which time they go to sea. Char then return to freshwater every year to overwinter, returning to saltwater after break-up.

The Wulik River supports small populations of chum, pink, and sockeye salmon. Pink salmon spawn in the lower 6 miles of the Wulik River and chum salmon spawn in the lower 15 miles of the river; sockeye salmon spawn below Wulik Forks.

Resources and Values

- o biological resources - arcti char overwintering for the Wulik and Kivalina River Systems.

7. Noatak River Chum Salmon Spawning Area

The Noatak River chum salmon spawning area is a restricted/sensitive use area requiring additional protection for biological resources. This area does not include the village of Noatak.

Chum salmon populations in the NANA Region appear to be primarily limited by the availability of suitable spawning habitat. The Noatak River supports the NANA Region's largest chum salmon run. Mean annual escapement in the Noatak is about 135,300 fish, although annual variation is significant. Chum salmon begin entering the Noatak River as

early as the first week in July; however, the run does not peak until mid-August and continues through September. Close to 80 percent of the Noatak chum salmon spawn in the lower 200 miles of the river, with spawning grounds concentrated between the mouths of the Eli and Kelly Rivers in braided channels and sloughs along the east bank. Chum salmon spawning peaks in mid- to late-September, hatching peaks in late December and early January, and emergence of fry occurs in early May. Chum salmon fry feed on aquatic insects until migrating out of freshwater into Kotzebue Sound in mid-June.

In the last several years relatively large numbers of pink salmon (92,000 in 1982) have also been reported to spawn in the lower Noatak River. In addition, the lower Noatak River supports a sheefish population and is an overwintering area for Arctic char.

Resources and Values

- o biological resources - approximately 80 percent of chum salmon spawn within the Noatak River Chum Salmon Spawning Area.

8. Upper Kivalina River

The upper Kivalina River is a restricted/sensitive area requiring additional protection for subsistence use and biological resources.

The primary subsistence uses in this area are fishing and hunting. Arctic char, chum salmon and whitefish are harvested during the summer months. During the fall, moose are hunted along the river.

An important spawning area for chum salmon occurs from Kitingirak Gap downstream to Simik Hill. Pink salmon spawn downstream from Simik Hill to the mouth of the river. Spawning Arctic char are present in the upper Kivalina River. The Kivalina River provides important overwintering habitat for fish, including Arctic char. The low shrub riparian community along the Kivalina floodplain is a major winter

browse habitat for moose in the region. This reach of the Kivalina River occasionally receives heavy use as winter range for caribou of the Western Arctic Herd.

This area is intensively used by the people of Kivalina.

5.5.4 Identification of Additional Areas

As more is known about important coastal land and water resources, and when specific major resource/transportation development projects are proposed, the NANA CRSA Board will begin a process of designating these areas as new Special Use and Restricted/Sensitive Areas and develop appropriate policies. Depending on the nature and location of proposed resource/transportation activities, additional planning may be recommended prior to formal approval as a special use area. This process is described in Section 7.0, Implementation.

6.0 POLICIES

6.0
POLICIES

6.1 INTRODUCTION

Policies are the "enforceable rules" of a coastal management program; all uses and activities subject to the program must comply with coastal management policies in order to be determined "consistent" with the coastal management program. All parties participating in consistency determinations will use the policies as the means for deciding consistency.

The policies presented in this section are designed to clearly identify "performance standards" for the protection of important resource values and uses while providing some flexibility in making consistency determinations. Activities and uses subject to a consistency determination must clearly show compliance with coastal management policies. The application of policies in making a consistency determination will not restrict uses of state concern without meeting Coastal Policy Council requirements for restricting such uses of state concern.

In addition to performance standards, some of the policies request information needed by the CRSA Board or state agency to evaluate "performance" and make consistency determinations. Information requested is supplementary to general project information to be provided, as identified in Chapter 7.0, Implementation.

Preparation of these policies included four major steps:

- o review of the resource inventory and analysis and input from public participation.

- review and incorporation of appropriate policies from earlier NANA CRSA Program documents, the NANA Corporation, KIC, and the City of Kotzebue.

- review of Alaska Coastal Management Program Standards and Guidelines requirements and organization of the policies to reflect these requirements.

- preparation of policies for General Use, Specific Use, and Restricted/Sensitive Use areas.

As a result of this process, the NANA CRSA policies support the resources and values important to NANA residents. The pursuit of subsistence activities continues to provide the foundation for traditional cultural values and the community and regional economy. Within the last decade, NANA residents have worked to strengthen their economy through the development of reindeer herding, small scale agricultural and timber harvesting activities, and more recently, mineral resources. However, it has been a regional policy to balance economic development with maintaining the traditional Native culture and subsistence economy.

The policies in the General Use Area apply to the entire coastal area and must be complied with, regardless of whether the subject use takes place within General Use, Special Use, and Restricted/ Sensitive Use Areas or Areas Meriting Special Attention. In addition to the General Use policies, activities and uses taking place within the latter three areas must comply with the policies applicable to those specific areas.

In addition to enforceable policies, several administrative policies for the NANA CRSA Board have been included. These are recognized as "unenforceable" and are designated as administrative policies. Administrative policies primarily address coordination with local residents on consistency determinations, and the authority of the CRSA Board to designate new Special and Restricted/Sensitive Use Areas.

6.2 GENERAL USE POLICIES

The following policies apply to all activities and uses of coastal lands and water within the General Use Area of the NANA CRSA:

A. SUBSISTENCE

A-1 Subsistence Priority

Subsistence use of coastal lands and waters is the primary and highest priority use of all lands and waters within the coastal management plan area; therefore all other land/water management uses and activities shall accommodate subsistence uses.

A-2 Land Use Area Designation

Especially sensitive areas of significant subsistence resource use may be proposed by the CRSA Board as Special Use or Restricted/Sensitive Areas (Administrative Policy), subject to approval by the Coastal Policy Council.

A-3 Local Concerns

The CRSA Board shall work with communities affected by proposed activities to identify subsistence resource concerns and to develop appropriate stipulations (Administrative Policy).

A-4 Site Plans

Site development plans shall include provisions to accommodate subsistence and minimize any adverse impacts upon it.

A-5 Access to Resources

Traditional and customary access to subsistence areas shall be maintained unless alternate access acceptable to subsistence users is provided.

B. TRAPPING

B-1 Planning Processes

Issuance of trapping cabin permits in the Pah River, Squirrel River, and Agashashak River watersheds shall be subject to the procedures referenced in Chapter 7.7 under land disposals.

B-2 Mitigation

Uses and activities not related to trapping shall minimize and mitigate impacts to trapping activities and resources.

B-3 Non-Trapping Uses

Residential and non-trapping commercial uses of trapping cabins shall be prohibited.

C. HABITAT AND BIOLOGICAL RESOURCE PROTECTION

C-1 Uses and activities that do not conform with the following habitat and biological policies shall be allowed if 1) there is a significant public need for the activity, 2) there are no feasible and prudent alternatives, and 3) all feasible and prudent steps to maximize conformance have been taken.

C-2 Land Use Area Designation

Areas of important habitat and use may be proposed as Special Use Area or Restricted/Sensitive Use Area by the CRSA Board (Administrative Policy), subject to approval by the Coastal Policy Council.

C-3 Habitat Maintenance

All habitats shall be managed so as to maintain or enhance the biological, chemical and physical characteristics of the habitat which contribute to its capacity to support living resources.

C-4 Offshore Areas

Offshore areas shall be managed to maintain or enhance commercial and subsistence fisheries, and marine mammal subsistence harvesting.

C-5 Estuaries

Estuaries shall be managed so as to assure adequate water flow, natural circulation patterns, nutrients, and oxygen levels, and avoid the discharge of toxic wastes, silt, and destruction of important habitat. These areas shall be managed to maintain or enhance commercial and subsistence fisheries, and marine mammal subsistence harvests.

C-6 Wetlands and Tideflats

Wetlands and tideflats shall be managed so as to assure adequate water flow, nutrients, and oxygen levels and avoid adverse changes in natural drainage patterns, the destruction of important habitat, and the discharge of toxic substances.

C-7 Rocky Islands and Seacliffs

Rocky islands and seacliffs shall be managed so as to avoid the harrassment of wildlife, and destruction of important habitat.

C-8 Barrier Islands and Lagoons

Islands and lagoons shall be managed so as to maintain adequate flows of sediments, detritus, and water, avoid the alteration or redirection of wave energy which would lead to the filling in of lagoons or the erosion of islands, and discourage activities which would decrease the use of islands by coastal species, including polar bears and nesting birds.

C-9 High Energy Coasts

High energy coasts shall be managed by assuring the adequate mix and transport of sediments and nutrients and avoiding redirection of transport processes and wave energy.

C-10 Rivers, Lakes and Streams

Rivers, streams, and lakes shall be managed to protect natural vegetation, water quality, important habitat and natural water channels and flows required to protect fish and wildlife habitat.

C-11 Upland Habitats

Important habitats in upland areas shall be managed to maintain natural drainage patterns, prevent excessive runoff and erosion, surface water quality, and natural ground-water recharge areas and alteration of vegetation which may result in decreased biological productivity.

D. HISTORIC, PREHISTORIC AND ARCHAEOLOGICAL RESOURCES

D-1 Land Use Area Designation

Areas of unusually concentrated or culturally important archaeological, prehistoric and historical resources may be proposed by the CRSA Board as Special Use or Restricted/Sensitive Areas (Administrative Policy), subject to approval by the Coastal Policy Council.

D-2 Resource Protection

Archaeological, prehistoric and historic resources shall be protected to the extent feasible and prudent from adverse impacts caused by surrounding uses and activities.

D-3 Data Requirements

Prior to any major archaeological project within the district, adequate information shall be provided to the NANA CRSA Board concerning:

- o purpose of the project;
- o proposed site area;
- o timing of operation;
- o project impact, if any, of the operation.

D-4 Local Notification

The NANA CRSA Board affected communities and landowners and other appropriate parties shall be notified before any excavation or archaeological related work commences on lands around their respective villages.

E. AIR, LAND AND WATER QUALITY

E-1 State and Federal Regulations

The statutes pertaining to and the regulations and procedures of the Alaska Department of Environmental Conservation with respect to the protection of air, land, and water quality are incorporated into the NANA Coastal Management Program and, as administered by that agency, constitute the components of the coastal management program with respect to those purposes.

E-2 Cumulative Impact

Entities proposing new industrial developments shall provide appropriate information to the Coastal Coordinator on their cumulative impact on district air and water quality. This information will be considered by the Board prior to consistency recommendations for the project.

E-3 Best Available Technology

To the extent feasible and prudent, equipment and activities shall utilize the best available and effective technology to minimize emissions and effluents, and to facilitate handling, cleanup, and disposal of oil and hazardous materials.

E-4 Wastewater Discharge

The discharge of industrial and commercial wastewater into coastal waters of the NANA CRSA District shall be limited to areas with enough flushing action to avoid adverse impacts on fish and wildlife. Discharge shall not be in amounts adversely impacting marine mammals, waterfowl, and fish populations.

E-5 Siting

The CRSA Board shall work with developers of proposed industrial facilities to evaluate emission and effluent dispersion, and assist in siting industrial facilities (Administrative Policy).

E-6 Refuse Disposals

To the extent feasible and prudent, refuse disposals in upland sites shall be designed, sited, and maintained so as to avoid the destruction of important habitats and pollution of surrounding areas and attraction of wildlife.

E-7 Toxic Wastes

The disposal and storage of toxic wastes shall comply with the Alaska Department of Environmental Conservation regulations and shall be subject to cooperative planning with the NANA CRSA Board, affected communities, NANA, KIC, and other appropriate landowners.

E-8 Erosion and Siltation

To the extent feasible and prudent, soil erosion shall be minimized by restricting the removal of vegetation adjacent to water bodies and by stabilizing and revegetating disturbed soil as soon as possible.

F. GEOPHYSICAL HAZARDS

F-1 Design and Siting Criteria

Industrial and commercial development shall not be located in a geophysical hazard area if a feasible and prudent alternate site does not exist. Development in hazard areas shall be preceded by adequate siting design and construction measures for minimizing property damage and protecting against loss of life.

F-2 Erosion

To the extent feasible and prudent, development and resource extraction shall be sited and conducted to avoid increasing coastal erosion and impacting coastal processes.

F-3 Coastal/Seiche Flooding

To the extent feasible and prudent, industrial and commercial development outside established communities and within areas subject to storm surge flooding shall be limited to water-

dependent/water-related uses. Water-dependent development within such areas shall mitigate the potential hazard through siting/design/construction measures.

F-4 Landslides and Mass Wasting Hazards

To the extent feasible and prudent, commercial and residential development shall avoid areas identified as subject to landslide and mass wasting hazards. Industrial development shall mitigate the hazard through siting/design/construction measures.

F-5 Riverine Flooding

To the extent feasible and prudent, industrial and commercial development shall not be sited within the active floodplain and highwater channels. Structures within areas that flood annually must be sited, designed and constructed to minimize property damage and protect against loss of life.

G. COASTAL DEVELOPMENT

G-1 Water Dependent and Related

In planning for and approving development in shoreline and waterfront, the NANA Coastal Management Program and state agencies shall give, in the following order, priority to:

- water-dependent uses and activities;
- water-related uses and activities; and
- uses and activities which are neither water-dependent nor water-related for which there is no feasible and prudent inland alternative to meet the public need for the use or activity.

G-2 Dredge and Fill

Shoreline modifications and the discharge of dredged or fill material shall comply with existing state and federal standards.

G-3 Multiple Use

To the extent feasible and prudent, piers, cargo handling, storage, parking, and other facilities shall be designed and used to prevent the need for duplicative facilities.

G-4 Compatibility

To the extent feasible and prudent, activities on and uses of coastal lands and waters shall be compatible with adjacent land and water uses.

G-5 Optimum Resource Use

Maintenance and enhancement of fisheries, subsistence and commercial fishing sites, and fishing gear storage areas shall be given priority consideration for shoreline use.

G-6 Industrial Development

Development of industrial and energy-related facilities shall include programs to replace fish stock of commercial and subsistence importance that will be lost due to aspects of project construction and operations.

G-7 Development Timing

Offshore resource exploration and development activities must be timed and/or located to avoid interference with commercial and subsistence fishing activities.

H. LAND DISPOSAL

H-1 Planning Requirements (Sivunniuq)

The state government must work with the CRSA Board, affected landowners, and affected local governments in the planning processes outlined in Chapter 7.7 for all land disposals (including homesteading settlement, subdivision, and agricultural and coordination with shareholder homesite programs and other private land disposal programs). Federal land disposals are subject to the same requirements.

I. TRANSPORTATION AND UTILITIES

I-1 Land Use Area Designation

New transportation corridors or facilities that are not related to community service may be proposed as Special Use Areas by the CRSA Board (Administrative Policy), subject to approval by the Coastal Policy Council.

I-2 Planning Processes

The state and federal government shall participate with the CRSA Board, affected land owners, and affected local governments in planning processes referenced in Chapter 7.7 for all transportation corridor designations.

I-3 Water Dependence

Transportation and utility routes and facilities shall be sited inland from beaches and shorelines unless the route or facility is water-dependent or no feasible and prudent inland alternative exists to meet the public need for the route or facility.

I-4 Minimize Impacts Transportation and Utility Corridor Areas shall be sited, designed, and operated so that:

- o impacts on biological resources and local community way of life are kept to a minimum;
- o increased take of subsistence resources by non-NANA CRSA residents is discouraged, particularly when a scarcity of resources exists;
- o duplication of corridors and facilities will be minimized;

I-5 Migratory Passage

To the extent feasible and prudcent, transportation and utility corridor uses shall be sited, designed, and operated to allow for

the free passage and movement of fish and wildlife with due consideration for historic migratory patterns.

I-6 Anadromous Fish Streams

To the extent feasible and prudent, access roads shall avoid crossing anadromous streams. Bridge or culvert construction and design must minimize habitat disturbance and allow for free fish passage up to and including the mean annual floodplain. Phasing of construction scheduling shall be done to avoid critical migration periods for salmon and other anadromous species.

I-7 Stream Crossings

Road and pipeline crossings of rivers or streams shall be minimized and to the extent feasible and prudent consolidated at one location to reduce the number of crossings in an individual drainage.

I-8 Facility Design, Construction, and Maintenance

Highway, airport, port, and utility design, construction, and maintenance must minimize alteration of water courses, wetlands, and intertidal marshes, and visual degradation.

J. ENERGY FACILITIES (Oil and Gas Facilities, Hydroelectric Power, Coal, Geothermal and Transmission Lines Outside Communities)

J-1 Land Use Area Designation

Major energy facilities not related to community energy supply may be proposed as Special Use Areas by the CRSA Board (Administrative Policy), subject to approval by the Coastal Policy Council.

J-2 Planning Requirements

The state and federal government shall participate with the CRSA Board, affected land owners and affected local governments in a planning process referenced in Chapter 7.7 for all energy

exploration and development projects prior to development taking place.

J-3 Siting Considerations

The siting and approval of major energy facilities shall be based, to the extent feasible and prudent on the following standards:

- o site facilities so as to be compatible with existing and subsequent adjacent uses and projected community needs;
- o consolidate facilities, including use of waste heat;
- o consider the concurrent use of facilities for public or economic reasons;
- o cooperate with private landowners, local governments, developers, and state and federal agencies in the development of facilities;
- o select sites with sufficient acreage to allow for reasonable expansion of facilities;
- o select sites where development will require minimal site clearing, dredging, and construction in productive habitats;
- o site facilities in areas of least biological productivity, diversity, and vulnerability and where effluents and spills can be controlled or contained;
- o site facilities where winds and air currents maximize dispersal of airborne emissions.

J-4 Coordination

The site planning of community-related energy facilities shall be coordinated with NANA, KIC, and local governments of the communities affected.

J-5 Energy Facilities

To the extent feasible and prudent, existing energy facilities, including pipelines and transmission lines, shall be used to meet additional need for production, transmission/shipment, and distribution of energy resources.

K. MINING AND MINERAL PROCESSING

K-1 Land Use Area Designation

Areas of major mining (including placer mining) and mineral processing activities may be proposed by the CRSA Board as a Special Use Area by the CRSA Board (Administrative Policy), subject to approval by the Coastal Policy Council.

K-2 Planning Processes

Entities proposing major mining activities must participate with the CRSA Board, affected local governments, and affected landowners in the planning process referenced in Chapter 7.7.

K-3 Project Design

Mining and mineral processing in the district shall be regulated, designed, and conducted so as to be compatible with the standards contained in this plan, and adjacent uses and activities.

K-4 Coastal Gravel Extraction

Sand and gravel may be extracted from coastal waters, intertidal areas, barrier islands, and spits, when there is no feasible and prudent alternative to coastal extraction which will meet the public need for the sand or gravel. Such extraction activities must minimize adverse impacts on wave-energy, sediment transport, herring and anadromous fish spawning and rearing habitat,

waterfowl habitat; minimize increase in shoreline erosion; and must minimize increases in sedimentation.

K-5 Floodplain Gravel Extraction

Removal of floodplain gravel from small tundra origin streams shall be prohibited. In the Kobuk, Noatak, Ambler, and other major rivers, gravel extraction must incorporate applicable guidelines presented in Appendix D.

K-6 Local Participation

Regional residents shall be provided the opportunity to participate in the decision-making process and provide recommendations regarding mining activities on lands around their respective villages, as outlined in Section 7.7 in the new Implementation Chapter.

K-7 Plan Review

Plans for mining gravel in floodplains shall be reviewed by the CRSA Board prior to initiating gravel mining, as outlined in Section 7.7 of the Implementation Chapter.

K-8 Existing Sites

To the extent feasible and prudent, existing sites as defined in the NANA Regional Strategies, shall be used to meet demands for sand and gravel within the region.

K-9 Reclamation

Reclamation of all upland and floodplain sites shall be required, and at a minimum will include the following elements, as applicable:

- storage of top soil above the annual floodline
- storage of overburden above the annual floodline
- regrading of all disturbed areas to stable slopes that blend with the natural topography

- revegetation of slopes as necessary with suitable vegegation to prevent erosion, with preference towards native vegetation

L. TIMBER HARVEST AND PROCESSING

L-1 Timber Management Practices

Best management practices shall be used in all forestry and timber harvest activities in accordance with the Forest Resource and Practice Regulation (11 AAC 95) of the Forest Practices Act (AS 41.17).

L-2 Planning Processes

Entities proposing timber harvest and processing within the region must participate with the CRSA Board, affected local governments, and affected landowners in the planning processes referenced in Chapter 7.7.

L-3 Subsistence Priority

The protection of subsistence resources in all timber management decisions.

L-4 Local Participation

Regional residents shall participate in the decision-making process in designating cutting around their respective villages, in the planning processes referenced in Section 7.7 of the Implementation Chapter.

L-5 Habitat Impact

Timber harvesting activities shall be conducted in a manner that minimizes damage to or loss of anadromous fish habitat and adverse impacts to important caribou habitat and migration routes.

M. RECREATION

M-1 Land Use Area Designation

Areas which receive use for recreation pursuits or as a major tourist destination may be proposed as a special use area (Administrative Policy), subject to approval by the Coastal Policy Council.

M-2 Coordination

Recreational planning for federal and state lands within the district must be coordinated with the CRSA Board, NANA, KIC, affected local governments, and other landowners, through the planning processes referenced in Section 7.7 of the Implementation Chapter.

M-3 Easements

Recreation use of private lands and waters shall stay within designated easements and campsites unless otherwise allowed through permits or permission from private owners.

M-4 Cleanup

All recreational users shall comply with federal, state and private permit requirements pertaining to clean up of camps after usage.

M-5 Subsistence Conflicts

Planning for recreational fishing and hunting shall minimize interference with subsistence activities.

M-6 Compatibility

Recreational facilities shall be sited, designed and constructed to minimize conflicts with other uses, activities, and user groups not compatible with recreational uses.

M-7 Scenic Views

Recreational and access developments shall, to the extent feasible and prudent, preserve or enhance scenic views and vistas as well as improve the aesthetic value of the area.

N. COASTAL ACCESS AND EASEMENTS

N-1 Subsistence Access

Federal, state and local management plans and specific project development shall allow access to subsistence resources and activities.

N-2 Easements

Recreational users shall utilize permitted or identified easements through or adjacent to private lands unless having received appropriate permits or permission from private landowners.

N-3 Coordination

Plans to develop access points and easement routes on state and federal lands shall be coordinated with the CRSA Board, NANA, KIC, affected local governments, and adjacent land owners, using the planning processes outlined in Section 7.7 of the Implementation Chapter.

6.3 SPECIAL USE AREA POLICIES

AA SISOALIK SPIT

AA-1 Subsistence

Non-subsistence uses and activities shall not adversely impact subsistence activities such as egg gathering, waterfowl hunting, marine mammal hunting, and fishing between June 1 and September 30.

AA-2 Marine Mammals

Offshore activities and uses, not related to subsistence, in the vicinity of Sisaolik Spit shall minimize impacts on marine mammals. During April, May, June, September, and October, resource exploration and extraction activities are prohibited.

AA-3 Cultural Resources

Prior to construction, developers proposing commercial and industrial uses and activities involving surface disturbance and excavation shall provide adequate information to the NANA CRSA Board regarding proposed site area and timing of operation, in order to protect cultural resources, as outlined in Section 7.10 of the Implementation Chapter.

AA-4 Commercial Fishing

During the commercial fishing season, July and August, commercial fishing and subsistence activities are priority uses and adverse impacts with these activities shall be minimized.

AA-5 Alternative Sites

To the extent feasible and prudent, entities proposing non-subsistence/non-commercial fishing uses and activities must locate such activities at alternative sites outside the area.

AA-6 Minimize Impacts

Other uses and activities shall be located, scheduled, and managed to avoid or minimize impact on commercial fishing and subsistence uses and activities.

AA-7 Mitigation

Entities proposing uses and activities shall describe mitigation measures used to adequately protect subsistence, cultural, and biological resources

BB CAPE KRUSENSTERN

BB-1 Subsistence

Non-subsistence uses and activities shall not adversely impact subsistence activities between March 15 and October 31.

BB-2 Marine Mammals

Activities and uses, not related to subsistence, in the waters offshore of Cape Krusenstern shall be conducted to minimize impacts on marine mammals. During March 15 through July 15 and September and October, resource exploration and extraction activities are prohibited when marine mammals are present.

BB-3 Cultural Resources

Prior to industrial and commercial construction, entities proposing uses and activities requiring surface disturbance and excavation shall coordinate with the NANA CRSA Board, National Park Service, and other affected land owners as outlined in Section 7.7 of the Implementation Chapter. Information shall be provided on the proposed site area, timing of construction, and measures being used to protect the resources, as outlined in Chapter 7.10.

BB-4 Tern Nesting Sites

Activities and uses not related to subsistence and to cultural resource studies shall minimize disturbance to tern nesting areas identified in the resource analysis.

BB-5 Alternative Sites

To the extent feasible and prudent, entities proposing uses and activities not related to cultural resource management and subsistence must locate such activities at alternative sites outside the area.

BB-6 Minimize Impacts

Uses and activities shall be managed, scheduled, and located to avoid or minimize impacts on cultural resources and subsistence activities.

BB-7 Mitigation

Entities proposing uses and activities shall describe mitigation measures used to adequately protect cultural and subsistence resources.

CC KOBUK/SELAWIK LAKES

CC-1 Subsistence

Offshore activities and uses not related to subsistence shall not adversely impact the following spring and fall activities and uses:

- seal hunting (September-October)
- smelt and herring spawning (May-June)
- waterfowl hunting (April 15-October)
- sheefish fishing (November-May)

CC-2 Fish

Industrial and commercial activities and uses requiring water intake or discharge of effluent shall be sited, designed, and operated to minimize impacts to larval and juvenile fish. Offshore activities and uses shall be sited, designed, and operated to minimize impacts on anadromous fish migration and overwintering fish populations.

CC-3 Alternative Sites

To the extent feasible and prudent, entities proposing uses and activities not related to subsistence, commercial fishing, and biological resource management shall locate such activities at alternative sites outside the area.

CC-4 Minimize Impacts

Uses and activities shall be sited, scheduled and operated to avoid or minimize impacts to subsistence activities, commercial fishing, and biological resources.

CC-5 Mitigation

Entities proposing uses and activities shall describe mitigation measures used to adequately protect subsistence activities, commercial fishing, and biological resources.

DD CAPE ESPENBERG/GOODHOPE RIVER

DD-1 Subsistence

Non-subsistence activities shall not adversely impact the following activities:

- o seal hunting (May 1 - July 15)
- o fall waterfowl hunting
- o summer egg gathering
- o walrus hunting (June)

DD-2 Seal Haulout Areas

Offshore and onshore resource exploration and extraction activities shall maintain a one mile buffer from identified seal haulout areas (Map 7) when seals are present.

DD-3 Alternative Sites

To the extent feasible and prudent, entities proposing uses and activities not related to subsistence activities and fish and wildlife management shall locate such activities at alternative sites outside the area.

DD-4 Minimize Impacts

Uses and activities shall be sited, scheduled and operated to avoid or minimize impacts to subsistence activities and biological resources.

DD-5 Mitigation

Entities proposing uses and activities shall describe mitigation measures to adequately protect subsistence activities and biological resources.

EE KOBUK RIVER DELTA

EE-1 Subsistence

Uses and activities not related to subsistence shall not adversely impact the following activities:

- o waterfowl hunting (July 1 - August 15)
- o spring and summer sheefish fishing
- o winter and spring muskrat trapping

EE-2 Waterfowl Nesting

Resource exploration and extraction activities shall be sited and scheduled to avoid waterfowl staging (spring/fall) and nesting periods (summer).

EE-3 Fish

Industrial and commercial uses and activities requiring water intake effluent discharge or habitat alteration shall be sited, designed and operated to minimize impact on juvenile fish.

EE-4 Alternative Sites

To the extent feasible and prudent, entities proposing uses and activities not related to subsistence activities and commercial fishing and fish and wildlife management must locate such activities at alternative sites outside the area.

EE-5 Impact Analysis

Entities proposing uses and activities within this area shall present an analysis of potential impacts on subsistence activities, fish and wildlife habitat and populations to the NANA CRSA Board.

EE-6 Minimize Impacts

Uses and activities shall be sited, scheduled and operated to avoid or minimize impacts to subsistence activities and biological resources.

EE-7 Mitigation

Entities proposing uses and activities shall describe mitigation measures to adequately protect subsistence and biological resources.

FF SELAWIK RIVER DELTA

FF-1 Subsistence

Uses and activities not related to subsistence shall not adversely impact the following activities:

- o spring waterfowl hunting (April-October)
- o spring and summer sheefish fishing
- o winter/spring muskrat trapping

FF-2 Waterfowl Nesting

Resource exploration and extraction activities must be sited and scheduled to avoid waterfowl staging (spring/fall) and nesting periods (summer).

FF-3 Fish

Industrial and commercial uses and activities requiring water intake or effluent discharge must be designed and operated to minimize impact on juvenile fish.

FF-4 Alternative Sites

To the extent feasible and prudent, entities proposing uses and activities not related to subsistence activities and fish and wildlife management must locate such activities at alternative sites outside the area.

FF-5 Impact Analysis

Entities proposing uses and activities within this area shall present an analysis of potential impacts on subsistence activities and fish and wildlife habitat and populations to the NANA CRSA Board.

FF-6 Minimize Impacts

Uses and activities shall be located, scheduled and managed to avoid or minimize impacts to subsistence activities and biological resources.

FF-7 Mitigation

Entities proposing uses and activities shall describe mitigation measures to adequately protect subsistence and biological resources.

GG SALMON RIVER

GG-1 Subsistence

Uses and activities not related to subsistence shall not adversely impact the following activities:

- o caribou hunting (mid-August to mid-October)
- o salmon and whitefish fishing (August-September)
- o furbearer trapping

GG-2 Caribou Migration

Uses and activities not related to subsistence shall be required to cease operations during the initial phase of caribou migration, if impacts to migration will occur.

GG-3 Fish Spawning

Gravel extraction, placer mining, and placement of in-stream structures will be prohibited within identified spawning areas (Maps 5 and 6).

GG-4 Alternative Sites

To the extent feasible and prudent, entities proposing uses and activities not related to subsistence and wildlife management must locate such activities at alternative sites outside the area.

GG-5 Impact Analysis

Entities proposing uses and activities within the area not related to subsistence or fish and wildlife management must present an analysis of impacts on fishery resources and caribou migration and habitat to the NANA CRSA Board.

GG-6 Minimize Impacts

Uses and activities shall be sited, scheduled, and operated to avoid or minimize impact to caribou migration.

GG-7 Mitigation

Entities proposing uses and activities shall describe mitigation measures to adequately protect caribou migration.

HH SELAWIK/HUNT/REDSTONE RIVERS CARIBOU MIGRATION CORRIDOR

HH-1 Subsistence

Uses and activities not related to subsistence shall not adversely impact fall caribou hunting between mid-August and mid-October.

HH-2 Caribou Migration

Uses and activities not related to subsistence shall be required to cease operations during the initial phase of caribou migration, if impacts to migration will occur.

HH-3 Alternative Sites

To the extent feasible and prudent, entities proposing uses and activities not related to subsistence and wildlife management

must locate such activities at alternative sites outside the area.

HH-4 Impact Analysis

Entities proposing uses and activities within the area not related to subsistence wildlife management must present an analysis of impacts on caribou migration and habitat to the NANA CRSA Board.

HH-5 Minimize Impacts

Uses and activities shall be sited, scheduled, and operated to avoid or minimize impact to caribou migration.

HH-6 Mitigation

Entities proposing uses and activities shall describe mitigation measures to adequately protect caribou migration.

II MANILAQ RIVER/AMBLER LOWLANDS AREA

II-1 Subsistence

Uses and activities not related to subsistence will not adversely impact the following activities:

- o fall caribou hunting (mid-August/mid-October)
- o waterfowl hunting (spring summer)
- o trapping (fall and winter)

II-2 Caribou Migration

Resource exploration, extraction, and transportation activities shall be required to cease operation during the initial phase of caribou migration, if impacts to migration will occur.

II-3 Water Quality

Mining activities, including hardrock, placer and gravel, shall avoid or minimize impacts on water quality and increased sediment load in rivers, lakes, and streams.

II-4 Alternative Sites

To the extent feasible and prudent, entities proposing uses and activities not related to subsistence and wildlife management shall locate such activities at alternative sites outside the area.

II-5 Impact Analysis

Entities proposing uses and activities within this area not related to subsistence wildlife management must present an analysis of impacts on subsistence activities and caribou migration habitat to the NANA CRSA Board.

II-6 Minimize Impacts

Uses and activities shall be sited, scheduled, and operated to avoid or minimize impact to subsistence activities and caribou migration.

II-7 Mitigation

Entities proposing uses and activities shall describe mitigation measures to adequately protect caribou migration, waterfowl nesting, and fish resources.

JJ PAH RIVER TRAPPING AREA

JJ-1 Subsistence

Uses and activities not related to subsistence shall not adversely impact the following activities:

- o fall caribou hunting (mid-August/mid-October)
- o waterfowl hunting (spring summer)
- o trapping (fall and winter)

JJ-2 Caribou Migration

Resource exploration, extraction, and transportation activities shall be required to cease operation during the initial phase of caribou migration, if impacts to migration will occur.

JJ-3 Water Quality

Mining activities, including hardrock, placer and gravel, shall avoid or minimize adverse impacts on water quality and increased sediment load in rivers, lakes, and streams.

JJ-4 Alternative Sites

To the extent feasible and prudent, entities proposing uses and activities not related to subsistence and wildlife management shall locate such activities at alternative sites outside the area.

JJ-5 Impact Analysis

Entities proposing uses and activities within this area not related to subsistence wildlife management shall present an analysis of impacts on subsistence activities and caribou migration habitat to the NANA CRSA Board.

JJ-6 Minimize Impacts

Uses and activities shall be sited, scheduled, and operated to avoid or minimize impact to subsistence activities and caribou migration.

JJ-7 Mitigation

Entities proposing uses and activities shall describe mitigation measures to adequately protect caribou migration, waterfowl nesting, and fish resources.

KK RED DOG TRANSPORTATION CORRIDOR

KK-1 Caribou Monitoring

A caribou monitoring program shall be designed and conducted to provide advanced notice of caribou migrations approaching the road corridor. Restrictions on road construction and use shall be imposed if adverse impacts are expected.

KK-2 Access

Access shall be provided for National Park Service research and management activities on monument lands.

KK-3 Fish

Entities proposing uses and activities shall ensure protection of anadromous and resident fish.

KK-4 Cultural Resources

Natural Park Service shall have access to examine cultural resource sites. Sites and artifacts discovered shall be protected by landowners.

KK-5 Gravel Extraction Sites

Gravel extraction sites shall be reclaimed upon completion of operations.

KK-6 Peregrine Falcon Sites

Active peregrine falcon nesting sites shall be protected, through the use of buffer zones, from any construction or use of transportation systems.

KK-7 Impact Mitigation

Adverse impacts on wildlife and habitat shall be mitigated during construction of transportation systems.

KK-8 Coordination

Entities proposing non-subsistence related uses and activities shall demonstrate that they have coordinated with the Red Dog project subsistence committee sponsored by the NANA Corporation.

LL INMACHUK RIVER

LL-1 Subsistence

Uses and activities not related to subsistence shall not adversely impact the following activities:

- o salmon and char fishing (July-September)
- o moose hunting (September-October)
- o furbearer trapping

LL-2 Waterfowl

Resource exploration and extraction activities shall be sited, scheduled, and operated to avoid impacts on waterfowl staging (spring/fall) and nesting areas (summer).

LL-3 Fish Spawning

Gravel extraction, placer mining, and placement of in-stream structures shall be prohibited within identified spawning areas.

LL-4 Alternative Sites

To the extent feasible and prudent, entities proposing uses and activities not related to subsistence and wildlife management shall locate such activities at alternative sites outside the area.

LL-5 Impact Analysis

Entities proposing uses and activities within the area not related to subsistence or fish and wildlife management shall present an analysis of impacts on fishery resources and caribou migration and habitat to the NANA CRSA Board.

LL-6 Minimize Impacts

Uses and activities shall be sited, scheduled, and operated to avoid or minimize impact to caribou migration.

LL-7 Mitigation

Entities proposing uses and activities shall describe mitigation measures to adequately protect caribou migration.

MM LOWER BUCKLAND RIVER

MM-1 Subsistence

Uses and activities not related to subsistence shall not adversely impact the following activities:

- o waterfowl hunting (spring/fall)
- o seal hunting (summer months)
- o moose hunting (September-October)

MM-2 Waterfowl

Prior to gravel extraction, placer mining, and placement of instream structures, the proposed area shall be surveyed for salmon spawning areas. These activities shall be prohibited in such areas.

MM-3 Salmon Spawning

Prior to gravel extraction, placer mining, and placement of instream structures, the proposed area shall be surveyed for salmon spawning areas. These activities shall be prohibited in such areas.

MM-4 Alternative Sites

To the extent feasible and prudent, entities proposing uses and activities not related to subsistence and wildlife management shall locate such activities at alternative sites outside the area.

MM-5 Impact Analysis

Entities proposing uses and activities within the area not related to subsistence or fish and wildlife management shall present an analysis of impacts on fishery resources and caribou migration and habitat to the NANA CRSA Board.

MM-6 Minimize Impacts

Uses and activities shall be sited, scheduled, and operated to avoid or minimize impact to caribou migration.

MM-7 Mitigation

Entities proposing uses and activities shall describe mitigation measures to adequately protect caribou migration.

NN NORTH FORK SQUIRREL RIVER/OMAR RIVER

NN-1 Subsistence

Uses and activities not related to subsistence shall not adversely impact the following activities:

- o fall caribou hunting (mid-August - mid-October)
- o salmon and char fishing (July-September)
- o waterfowl hunting (September-October)
- o furbearer trapping

NN-2 Caribou Migration

Uses and activities not related to subsistence shall be required to cease operations during the initial phase of caribou migration, if impacts to migration will occur.

NN-3 Fish Spawning

Gravel extraction, placer mining and placement of instream structures shall be prohibited in identified spawning areas.

NN-4 Alternative Sites

To the extent feasible and prudent, entities proposing uses and activities not related to subsistence and wildlife management shall locate such activities at alternative sites outside the area.

NN-5 Impact Analysis

Entities proposing uses and activities within the area not related to subsistence or fish and wildlife management shall present an analysis of impacts on fishery resources and caribou migration and habitat to the NANA CRSA Board.

NN-6 Minimize Impacts

Uses and activities shall be sited, scheduled, and operated to avoid or minimize impact to caribou migration.

NN-7 Mitigation

Entities proposing uses and activities shall describe mitigation measures to adequately protect caribou migration.

OO NORTH KIVALINA COAST

OO-1 Subsistence

Non-subsistence uses and activities shall not adversely impact the following subsistence activities:

- o marine mammal hunting (March 15-July 15)
- o waterfowl hunting (spring/fall)

OO-2 Marine Mammals

Activities and Uses, not related to subsistence, in the waters offshore Kivalina shall be conducted to minimize impacts on marine mammals. Between March 15 and July 15 and September 1 - October 31, resource exploration and extraction activities are prohibited when marine mammals are present.

OO-3 Alternative Sites

To the extent feasible and prudent, entities proposing uses and activities not related to subsistence and wildlife management shall locate such activities at alternative sites outside the area.

00-4 Impact Analysis

Entities proposing uses and activities within the area not related to subsistence or fish and wildlife management shall present an analysis of impacts on fishery resources and caribou migration and habitat to the NANA CRSA Board.

00-5 Minimize Impacts

Uses and activities shall be located and scheduled to avoid or minimize impact to caribou migration.

00-6 Mitigation

Entities proposing uses and activities shall describe mitigation measures to adequately protect caribou migration.

6.4 RESTRICTED/SENSITIVE USE POLICIES

AAA ONION PORTAGE

AAA-1 Prohibited Uses

Major resource exploration/development, commercial uses, transportation development and gravel extraction activities and uses are prohibited.

AAA-2 Priority Uses

Subsistence activities, cultural resource management, and fish and wildlife management are priority uses.

AAA-3 Caribou Migration

Uses and activities not related to subsistence, including river floating, shall be required to cease operation during the initial phase of caribou migration, if impacts to migration will occur.

AAA-4 Fishing

Uses and activities not related to subsistence shall not interfere with subsistence fishing and fish migration during June through October.

BBB ELEPHANT POINT/CHORIS PENINSULA

BBB-1 Prohibited Uses

Major resource exploration/extraction, transportation development (except ice roads for approved development projects), commercial development and gravel extraction activities and uses are prohibited.

BBB-2 Priority Uses

Subsistence activities, cultural resource management, and fish and wildlife management are priority uses.

BBB-3 Marine Mammals

Uses and activities not related to subsistence shall not adversely impact marine mammals or related subsistence activities during beluga whale hunting in June and July.

CCC KOBUK RIVER SHEEFISH/WHITEFISH SPAWNING AND USE AREA

CCC-1 Prohibited Uses

Gravel extraction and placer mining activities within the active floodplain are prohibited.

CCC-2 Priority Use

Subsistence activities, fish spawning, fish migration and fish and wildlife management are priority uses.

CCC-3 Wastewater Discharge

Industrial, and large scale commercial wastewater discharge must provide treatment to maintain water quality conditions and shall minimize adverse impact to fish and wildlife resources.

Small-scale commercial wastewater discharge shall take steps to maintain water quality and minimize impacts on fish and wildlife resources.

CCC-4 Buffer Zone

Outside villages, commercial and industrial construction activities outside villages, within 25 ft of the river are prohibited, and within 500 feet of the river must prevent onsite erosion and increasing sediment loading into the river.

CCC-5 Maintain Flows

Activities occurring upstream of this area shall maintain summer and winter flow of water necessary for fish and wildlife and habitat, and not cause downstream erosion.

DDD SELAWIK RIVER/SHEEFISH WHITEFISH SPAWNING AREA

DDD-1 Prohibited Uses

Gravel extraction and placer mining activities within the active floodplain are prohibited.

DDD-2 Priority Use

Subsistence activities, fish spawning, fish migration and fish and wildlife management are priority uses.

DDD-3 Wastewater Discharge

Industrial, and large scale commercial wastewater discharge shall provide treatment to maintain water quality conditions and must minimize impact to fish and wildlife resources. Small-scale commercial wastewater discharge shall take steps to maintain water quality and minimize adverse impacts on fish and wildlife resources.

DDD-4 Buffer Zone

Industrial, commercial, and subdivision construction activities outside villages within 25 ft of the river are prohibited;

within 500 feet of the river shall prevent onsite erosion and increasing sediment loading into the river.

EEE WULIK RIVER ARCTIC CHAR OVERWINTERING AND SPAWNING AREA

EEE-1 Prohibited Uses

The following activities are prohibited:

- o gravel extraction, placer mining, and placement of structures within the stream such as bridges, culverts, and pipelines year round,

- o new and expansion of existing commercial and industrial water withdrawal and effluent discharge during fall, winter, and spring.

EEE-2 Priority Uses

Subsistence activities, fish spawning and overwintering, and fish and wildlife management are priority activities.

EEE-3 Maintain Flows

Activities requiring water withdrawal during summer months shall maintain flows necessary to support fish and wildlife and their habitat. Activities occurring upstream of this area shall maintain summer and winter flow of water adequate to support fish and wildlife and their habitat and not cause downstream erosion.

EEE-4 Wastewater Discharges

Industrial, and large scale commercial wastewater discharge shall provide treatment to maintain water quality conditions and must minimize adverse impact to fish and wildlife resources. Small-scale commercial wastewater discharge shall take steps to maintain water quality and minimize adverse impacts on fish and wildlife resources.

FFF NOATAK RIVER CHUM SALMON SPAWNING AREA

FFF-1 Prohibited Uses

Gravel extraction and placer mining activities within the active floodplain are prohibited (except from existing gravel pits).

FFF-2 Priority Use

Subsistence activities, fish overwintering/spawning/migration, and fish and wildlife management are priority uses.

FFF-3 Wastewater Discharge

Industrial, and large scale commercial wastewater discharge shall provide treatment to maintain water quality conditions and shall minimize impact to fish and wildlife resources. Small-scale commercial wastewater discharge shall take steps to maintain water quality and minimize adverse impacts on fish and wildlife resources.

FFF-4 Buffer Zone

Industrial, commercial, and subdivision construction activities within 25 ft of the river are prohibited; within 500 feet of the river shall prevent onsite erosion and increasing sediment loading into the river.

GGG ESCHSCHOLTZ BAY

GGG-1 Prohibited Uses

Major resource exploration/extraction, transportation development (except for ice roads for approved development projects), commercial development and gravel extraction activities and uses are prohibited.

GGG-2 Priority Uses

Subsistence activities, cultural resource management, and fish and wildlife management are priority uses.

HHH UPPER KIVALINA RIVER

HHH-1 Prohibited Uses

The following activities are prohibited:

- o gravel extraction, placer mining, and placement of structures within the stream such as bridges, culverts, and pipelines year round,

- o new and expansion of existing commercial and industrial water withdrawal and effluent discharge during fall, winter, and spring.

HHH-2 Priority Uses

Subsistence activities, fish spawning and overwintering, and fish and wildlife management are priority activities.

HHH-3 Maintain Flows

Activities requiring water withdrawal during summer months shall maintain flows necessary to support fish and wildlife and their habitat. Activities occurring upstream of this area shall maintain summer and winter flow of water adequate to support fish and wildlife and their habitat and not cause downstream erosion.

HHH-4 Wastewater Discharges

Industrial, and large scale commercial wastewater discharge shall provide treatment to maintain water quality conditions and shall minimize impact to fish and wildlife resources. Small-scale commercial wastewater discharge shall take steps to maintain water quality and minimize adverse impacts on fish and wildlife resources.

7.0 IMPLEMENTATION

7.0

IMPLEMENTATION

7.1 INTRODUCTION

Basis for Consistency Determinations

The policies presented in Chapter 6.0 of this plan form the basis for consistency determinations by federal and state agencies, and consistency recommendations by the Coastal Board and its staff. These policies are considered the enforceable rules for the purpose of program implementation. The plan policies apply to all lands and subject uses and activities within the NANA coastal area. Through the existing project application process, the project developer must assure the Coastal Board that the proposed project is in conformance with applicable plan policies.

Implementation of the NANA Coastal Management Program and application of coastal management policies will rely on the utilization of existing federal, state, and local government regulations and planning activities. Cooperation and participation from the major private landowners and local governments in the Region will insure that coastal activities are conducted in a manner consistent with this plan's policies. Three mechanisms for local consistency recommendations are contained in this section. The new state consistency process plays a major role. A local review process is described for some activities in the City of Kotzebue. Certain types of major development activities will be treated comprehensively through conference and planning procedures, which include the participation of federal, state and native corporation land managers. These procedures will be used by the NANA Coastal Resource Service

Area Board (CRSA) in their consistency recommendation to apply policies and set the specific guidelines, standards, time lines and monitoring requirements for certain types of activities. The district program may be amended to include portions of appropriate planning efforts that serve to enhance the NANA CRSA program.

Frame Work for Implementation

All projects which require a state consistency certification under the state administrative code will be subject to a consistency determination through the NANA Coastal Management Plan. The plan's policies will be applied to projects, activities or uses which will be located in, or may have significant direct effects on the NANA Coastal area as outlined in 6 AAC 50. Projects that require an individual consistency review are listed in Section 7.3 and generally require state or federal permits or other approvals such as leases. When a land or water activity is developed or authorized as discrete phases, and each phase require agency decision(s) on permit approval, each phase is considered a "project" for the purposes of permit review.

A local organization will be established to make consistency recommendations. The existing CRSA Board will oversee the continued refinement, development and implementation of the coastal plan for the region. The NANA CRSA Board is the only appropriate local agent for plan implementation in the area. Involvement of the Board in interpreting the plan is crucial to successful implementation. The Coastal Coordinator and village contacts will aid the board and participate in a review of all projects.

Continued funding will be necessary for the CRSA Board to function after the completion and adoption of the NANA Coastal Management Plan.

The rest of the implementation chapter contains the following sections:

7.2 State and Federal Permit Review and Consistency Procedure
7.3 Permits and Activities Subject to Consistency Review
7.4 NANA CRSA Board Involvement in Consistency Determinations
7.5 Local Involvement in CRSA Board Recommendations
7.6 Key Local Participants and Responsibility
7.7 Sivunniuq: Planning for Major Projects
7.8 Amendments and Revisions
7.9 Monitoring and Enforcement
7.10 Pre-Application Packet Requirements

7.2 STATE AND FEDERAL PERMIT REVIEW AND CONSISTENCY PROCEDURE

Under the provisions of 6 AAC 50, the State of Alaska is required to make a determination of consistency with the Alaska Coastal Management Program (as amended by approved local district plans) for certain permits and other activities requiring approvals. The state resource agencies (DNR, DEC AND DF&G) and the Office of Management and Budget have developed a list of permits which will be subject to a Coastal Consistency determination. This list is divided into three groupings; Categorical Approval, General Concurrence and Individual Project Reviews. Projects which require one or more state permits from the last category will be the ones subject to state and local review. This list is discussed in more detail in Section 7.3.

Lead Agency

The lead agency is responsible for making all conclusive consistency determinations for state and federal permits. The Office of Management and Budget, Division of Governmental Coordination, is the lead agency for review of federal permits and for projects two or more state agency permits. Where only one state permit is required, the permitting agency is also the lead agency for consistency determination. Depending on the permit involved, the Departments of

Natural Resources, Environmental Conservation, Fish and Game, and Transportation could be lead agencies.

Procedure and Time line

For projects and activities subject to a consistency determination, the applicant must submit a completed project questionnaire to a state resource agency or to OMB. Based on the information provided in response to the questionnaire, the agency will identify all state resource agencies that the applicant must contact prior to submitting a permit application and will determine what agency will serve as the lead agency. The questionnaire will also be used in identifying state and local entities to be notified of the permit application and solicited for comment.

Proposals for projects received for review from the state will operate on one of two different time lines. The proposals will be reviewed on a 30 or 50-day schedule. Since the NANA Coastal District is within the unorganized borough, an automatic 10-day extension is granted which makes the time periods a minimum of 40 and 60 days long. Tables 7-1 and 7-2 present the major steps within the 40 and 60 day time lines.

The time line contains provisions for consistency conflict resolution at both the Director and Cabinet level, in addition to provisions for a public hearing. The Director level review will be initiated if OMB, the resource agencies, the applicant, and the coastal district are unable to reach agreement by day 34 for the 40-day permits or day 54 for the 60-day permits. Director level review takes place among the different department directors under the leadership of the department commissioner. Cabinet level review takes place between department commissioners with the governor providing leadership. Conflict resolution beyond this administrative system is through the court system. Additional review time will be provided for the approvals which are elevated to higher levels. Parties reviewing the permit application may request that the lead agency hold a public hearing prior to reaching a consistency determination. If such a request is

TABLE 7-1 MAJOR PROCEDURES UNDER THE 40-DAY SCHEDULE

STEP	40 Day Schedule (by day)
Early contact with district about projects	--
Applicant submits completed packet Coordinating agency distributes packet and schedule	1-2
Review period (upon request)	3-27*
Last day for information request via coordinating agency	25
Last day for request for public hearing	27**
Deadline for comments to coordinating agency. (verbal comments must be followed up in writing within 5 days)	28
Coordinating agency develops preliminary position; notifies applicant and districts with approved programs	34
Last day for written statement requesting elevation to director level	39
If a consensus is reached, consistency determination sent to reviewers	40***
If project is elevated, issues paper sent to reviewers	40****

* 10 day extension for comment and decision deadlines is automatic for the NANA Coastal area

** Coordinating agency must decide within 7 days whether to hold hearing. If so, agency must provide 15-30 days of notice, and provide summary of hearing 5 days afterwards. Parties also have the same 7 days after receipt of summary to provide additional comments

*** Agency permits to be issued five days after consistency determination received unless statutorily impossible

**** Elevation can take up to 15 days at each level. If no consensus reached during elevation to directors, then elevated to Commissioner for policy direction

TABLE 7-2 MAJOR PROCEDURES INVOLVEMENT UNDER THE 60-DAY SCHEDULE

STEP	60 Day Schedule (by day)
Early contact with district about projects	--
Applicant submits completed packet Coordinating agency distributes packet and schedule packet and schedule	1-2
Review period (upon request)	3-44*
Last day for information request via coordinating agency	35
Last day for request for public hearing	44**
Deadline for comments to coordinating agency. (verbal comments must be followed up in writing within 5 days)	44
Coordinating agency develops preliminary position; notifies applicant and districts with approved programs	54
Last day for written statement requesting elevation to director level	59
If a consensus is reached, consistency determination sent to reviewers	60***
If project is elevated, issues paper sent to reviewers	60****

* 10 day extension for comment and decision deadlines is automatic for the NANA Coastal area

** Coordinating agency must decide within 7 days whether to hold hearing. If so, agency must provide 15-30 days of notice, and provide summary of hearing 5 days afterwards. Parties also have the same 7 days after receipt of summary to provide additional comments

*** Agency permits to be issued five days after consistency determination received unless statutorily impossible

**** Elevation can take up to 15 days at each level. If no consensus reached during elevation to directors, then elevated to Commissioner for policy direction

received by day 34 or 17 (60 day and 40 day time lines) and the request raises concerns not adequately covered in the existing review, the lead agency will schedule and hold a hearing in the area affected by the project.

Relationship Between Federal Land and Activities and Consistency Determination

The coastal area includes all lands and waters within its boundaries not subject to the exclusive jurisdiction of the federal government. However, all uses and activities on these federal lands and waters must be consistent with the district program to the maximum extent possible when such activities are likely to have a direct effect on the coastal zone (Section 307(c), Coastal Zone Management Act of 1972, as amended). Currently most federal permits are being reviewed for consistency under the ACMP. The review process for these permits follows the same procedure previously outlined.

7.3 PERMITS AND ACTIVITIES SUBJECT TO CONSISTENCY DETERMINATION

The State of Alaska has developed a list of permits and approvals which will be subject to a consistency determination. This list is divided into three groupings: Categorical Approval, General Concurrence, and Individual Project Review. Projects which require one or more state permits from the last category are subject to the review procedures in this chapter.

The following list contains the permits and activities which are required to undergo individual project review in the NANA coastal area. This list is generally the same as the state list. However, a few permits and activities not on the state review list which are a key concern in the NANA Coastal Area are included in the category of Individual Project Review. These changes will provide review of projects that may have an affect on coastal resources as outlined in the statutes and regulations of the Alaska Coastal Management Program. The primary objectives for inclusion of these permits are to recognize

and assure opportunities for subsistence (6 AAC 80.120), regulate mining and mineral processing so as to be compatible with district programs (6 AAC 80.110), help identify areas of the coast important to local history or prehistory (6 AAC 80.150), and manage wetland and river lakes and streams habitat to enhance or maintain the characteristics of the habitat which contribute to its capacity to support living resources (6 AAC 80.130b).

The following permits have been transferred from General Concurrence to the Individual Project Review Category:

Trapping Cabin Permits - The location of trapping cabins increases pressure on furbearers in specific areas, which can diminish opportunities for subsistence and causes conflicts with rotational trapping patterns of local residents. Concentrated trapping from a fixed base over several years can cause a cumulative decrease in productivity of the trapped area. Local trappers displaced from trapping cabin areas will place additional trapping pressures in new areas. In addition, trapping cabins have been used for other non-permitted activities (such as guided hunts), also creating conflict. Coastal management consistency review of these permits will provide a more thorough review of potential impacts and conflicts prior to permit approval.

Timber Sales - Timber harvest activities have the potential to disrupt wildlife habitat and subsistence harvest activities within the coastal zone. Given the relatively low density and limited distribution of forest resources in the NANA CRSA, sales as small as 40 acres have the potential for significant impact on wildlife habitat and subsistence activities. The review threshold is changed from 160 to 40 acres.

Investigation/Removal of Historical and Archeological Resources - Cultural resources are extremely important to the residents of the NANA region. Uncoordinated investigations cause concern among local residents, and can also conflict with other activities such as

subsistence when proper notification is not given. Consistency review can result in scheduling recommendation that minimize potential conflicts. The cumulative effect of cultural resources investigations is also a concern. Coastal management consistency review would provide proper notice of proposed investigations and consideration of potential conflicts.

Scientific/Educational Collecting Permits - Collecting permits have three potential problems: lack of proper notice to local residents, conflicts with commercial fishing and subsistence activities, and cumulative impact. Collecting permits for significant collection of fish and waterfowl resource are of particular concern. Consistency review would help alleviate these problems.

Log Salvage Sales - Logs and driftwood are a resources used by local residents for home heating and home building, and like other subsistence harvest activities, contribute to the local economy. Log salvage sales near communities can eliminate an opportunity for subsistence and economically impact local residents by requiring them to use expensive substitutes. Local notification of sale and avoidance of potential conflicts with other activities is desirable; coastal management consistency can accomplish both of these objectives.

An individual consistency review is required for projects in the NANA coastal district requiring the following approvals. The appropriate review schedule is indicated.

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Review Schedule			
60-day	Air Quality Control Permit to Operate (PSD) (will likely require an extended review due to complex issues)	AS 46.020 AS 46.03.140 AS 46.03.150 & 160 AS 46.03.170 & 710	18 AAC 15 18 AAC 50 18 AAC 50.300(c)
60-day	Solid Waste Management Permit (includes disposal of oil cleanup debris)	AS 46.03.020 AS 46.03.100 AS 46.03.100 AS 46.03.110 AS 46.03.120 AS 46.03.710	18 AAC 15 18 AAC 60 18 AAC 75
60-day	Reclassification of Waters of the State (will likely require an extended review due to complex issues)	AS 46.03.020	18 AAC 15 18 AAC 70.055
60-day	Waste Disposal Permit (Wastewater Discharge)	AS 46.03.020 AS 46.03.100 & 110 AS 46.03.120 & 710	18 AAC 15 18 AAC 70 18 AAC 72.010
60-day	401 Certifications-- Certificate of Reasonable Assurance Sec. 401)	AS 46.03.020 (CWA [PL 95-217]	18 AAC 15 18 AAC 70 18 AAC 72
60-day	Oil Discharge Contingency Plans for offshore facilities and onshore fuel storage facilities with a capacity of greater than 10,000 barrels	AS 46.04.030	
40-day	Oil discharge permit for scientific purposes	AS 46.03.020	18 AAC 75
60-day	Permit to Apply Pesticides	AS 46.03.020 10(A) AS 46.03.020 10(6) AS 46.03.320 AS 46.03.330 AS 46.03.730	

DEPARTMENT OF NATURAL RESOURCES

° DISPOSALS

Division of Agriculture

N/A	1.	Lease of cleared or drained agricultural land

Division of Forestry

* N/A	1.	Timber sales of greater than 40 acres
* N/A	2.	Log salvage and beach log sales

Division of Land and Water Management

N/A	1.	Sales of Land by Auction or Lottery
N/A	2.	Disposal of Agricultural Interest
N/A	3.	Homesite Disposals
N/A	4.	Disposal of Remote Parcels
N/A	5.	Lease of Land
N/A	6.	Grazing Lease
N/A	7.	Lease of Tidelands
N/A	8.	Right-of-way or easement permits for roads, trails, ditches, pipelines, drill sites, log storage, telephone or transmission lines
N/A	9.	Oil and natural gas pipeline right-of-way leasing
N/A	10.	Material Sales, New Site
N/A	11.	Water Use Permits for water withdrawls from wells for 5000 gallons per day or more
N/A	12.	Water Use Permits for water withdrawls from lakes and streams for 1000 gallons per day or more
40-day	13.	General Land Use Permit
*40-day	14.	Trapping Cabin Permit
40-day	15.	Permit for investigation or removal of historical or archeological resources.

Division of Oil and Gas

N/A	1.	Oil and gas lease sales
N/A	2.	Geothermal prospecting permit
N/A	3.	Geothermal lease sales
N/A	4.	Oil shale lease
40-day	5.	Miscellaneous Land use Permits

Division of Mining

N/A	1.	Coal lease sales
N/A	2.	Coal prospecting permit
N/A	3.	Phosphate lease
N/A	4.	Sodium compound prospecting permit and lease
N/A	5.	Sulfur prospecting permit and lease
N/A	6.	Potassium compound prospecting permit and lease
N/A	7.	Offshore mining prospecting permit
N/A	8.	Upland mining lease
N/A	9.	Offshore mining lease and sales
N/A	10.	Production licenses to authorize commercial production from mining claims

° PERMITS AND OTHER APPROVALS

Division of Agriculture

60-day	1.	Approval of application for clearing or draining of agricultural land in vicinity of state land.

Division of Land and Water Management

60-day	1.	Approval of plan of operations or plan of development on leased lands (deadline does not apply when the plan is included in the lease at the time of the sale)
40-day	2.	General land use permits
40-day	3.	Tideland permits
40-day	4.	Temporary water use permits for water withdrawal of 5000 gallons or more in a single day or 1000 gallons per day or more

Division of Oil and Gas

60-day	1.	Approval of applications to drill geothermal wells
60-day	2.	Approval of plan of operations on leased lands
40-day	3.	Miscellaneous Land Use Permit for Geophysical Exploration

Division of Mining

40-day	1.	Miscellaneous land use permit for mining activity or mineral exploration
60-day	2.	Approval of plans of operations on leased lands or land subject to an offshore prospecting permit
*As per SCMCRA	3.	Approvals subject to the Alaska Surface Coal Mining Control and Reclamation Act, other than Notices of Intent to Explore

DEPARTMENT OF FISH AND GAME

40-day	All Anadromous Stream Permits	AS 16.05.870
40-day	Fish Passage Permit	AS 16.05.840
	Habitat Protection Permits	
60-day	Refuges	AS 16.20.060
60-day	Critical Habitat Areas Game Sanctuaries	AS 16.20.260 AS 16.20.120-130
60-day	Hatchery Permits	AS 16.10.400-430
*40-day	Scientific and Educational Collecting Permits	AS 16.20.120-170

* Recommended Additions to the Individual Project Review List

FEDERAL AGENCIES

At a minimum the following federal actions will be reviewed for consistency.

Environmental Protection Agency

Permits for ocean dumping (40 CFR 200)

Department of the Interior

Right-of-way for pipelines on the OCS (43 CFR 2883)
Disposal of produced water (30 CFR 221.14) National Wildlife Refuge

Lands and National Park Service Special Use Permit (50 CFR 26)
NPS, USFWS, BLM Land Use Plans.

Nuclear Regulatory Commission

Permit and licenses for the siting, construction and operation of nuclear facilities.

7.4 NANA CRSA BOARD INVOLVEMENT IN CONSISTENCY DETERMINATIONS

Due Deference

After a local program has been amended to the Alaska Coastal Management Program, the CRSA Board is one of several reviewers that provide consistency recommendations to the lead agency. That agency then makes a consistency determination. However, the recommendation of the CRSA Board, along with other resource agency recommendations, must be given "due deference" in making the consistency determination. This means if the coordinating agency rejects a stipulation or recommendation requested by the district, the coordinating agency must make a written finding stating the reasons for rejecting the stipulation.

Procedure

In the case of state or federal regulated or initiated activities, the state agency involved or the Office of Management and Budget, Division of Governmental Coordination (OMB-DGC) acting as the coordinating agency will solicit the NANA Coastal District comments on consistency and give "due deference" to the district's interpretation of the policies of the plan. The point of contact into the NANA Coastal District for state reviews is the Coastal Coordinator. The Coordinator will rely upon the information and policies in this plan, designated village contact and a NANA Coastal Board member who has been assigned to monitor consistency recommendations. Important major activities are addressed by the entire CRSA Board. More specific information on these people and their roles can be found in Section 7.6 of this chapter.

The Coastal Coordinator upon notification of a pending permit or action by a state agency will, in consultation with the appropriate village contact and CRSA Board member, draft written recommendations on project consistency with the NANA Coastal Management Plan. The written recommendations will include the reasons for the recommendation, with reference to applicable policies, and conditions, if necessary, which make the project or activity consistent with the NANA coastal management plan. This review will be accomplished within the time frame established by the permit review regulations.

The Coastal Coordinator will be assisted in writing the recommendation by the network of appropriate village contacts. Input from appropriate native corporation land managers will also be solicited. The village contact is responsible for providing information on local community concerns about the proposed development. Some developments will be of interest to more than one village, or have regional implications. The Coordinator will insure that simultaneous notice is given to every concerned party. Notices of all pending consistency recommendations will be sent to the City of Kotzebue, KIC Corp. and NANA Corp. The city and corporate land managers and planners will be given an opportunity to comment on consistency recommendations.

In addition to the village contacts, corporate land managers and City of Kotzebue, the Coastal Coordinator will have as a resource a NANA CRSA Board member, assigned on a rotating basis, to act in an oversight capacity and to advise on recommendations. In the case of a major region-wide action or conflict, the Coastal Coordinator and the assigned Board member will convene the entire NANA CRSA Board. The Board may request a public meeting under the provisions of Permit Review procedures, and will determine the project's consistency and propose conditions for development founded upon both the plan and the input from public meetings.

These conditions will be recommended to the lead agency for placement on the state or federal permit. These conditions are based upon

standards which meet the scope, intent and purpose of the plan policies and land use area designations.

Time Line

The NANA Coastal Coordinator will determine within ten calendar days as to whether the information submitted is adequate to determine consistency, or if more material is needed. If more information is required, the Coastal Coordinator will notify the OMB/DCG permit coordinator or the coordinating agency and specifically identify the necessary information. The lead agency will determine if the request is reasonable, and then provide additional review time.

The Coastal Coordinator in consultation with the local village contacts, appropriate native corporations, and Coastal Board Members will reach a consistency recommendation within 24 days of receipt of a complete application for 40 day permits and 44 days for 60 day permits. Consistency recommendations will include any conditions necessary to make the project consistent with the NANA Coastal Management Plan. Any disapproval or stipulations will include reference to the applicable policies and suggested changes which may make the project consistent.

Two additional review procedures apply to permits for major project activities (Section 7.7). As presented in Section 7.7, the CRSA Board strongly recommends that developers make a pre-development presentation before the Board, at least six months prior to filing a permit application. The Board hopes to work with developers to initiate early communication and speed up the permit review by the Board and local interests. Secondly, a permit application conference is required to be held within 10 working days of permit submittal. It will be coordinated by the lead agency and include the CRSA Board, representation of local communities and landowners, and appropriate state agencies.

The coordinating agency will be notified by the NANA CRSA Coastal Coordinator of the need for permit application conference within 5 days of notice on major projects. The CRSA Board may, using the procedures outlined in 6 AAC 50.100, request that a public hearing on the project be held in the region to gather information or ideas. The coordinating agency may be requested to grant a request for extension of the review schedule to allow time for the hearing. A final recommendation on the project consistency will be issued within 10 days after any hearing or teleconference. All consistency recommendations for federal or state permits will be forwarded in a timely manner.

Appeals

Appeals to state and federal consistency determinations follow the procedures under state regulations. Appeals to local consistency determinations which operate separately from the state and federal system, follow this similar procedure. Any local resident may petition the Coastal Board to review a local consistency determination. The petition must be filed within 60 days of the determination and include the reasons why the determination is invalid and the specific policies which are violated. The Coastal Board after reviewing the petition may schedule a public hearing to receive testimony or may deny the request for a review. After the public hearing, the Coastal Board will reaffirm the local consistency determination or modify the determination as it sees fit.

7.5 LOCAL INVOLVEMENT IN CRSA BOARD RECOMMENDATIONS

Communities and major landowners within the NANA CRSA will work with the CRSA Board in preparing their consistency recommendation.

Procedure

Within five days of receiving notice of a permit application, the Coastal Coordinator will determine which communities and major

landowners will be affected by the proposed action, and transmit project description to the appropriate contacts. The Coordinator, and CRSA Board members as appropriate, will work with community and landowner representatives to identify concerns and recommended conditions on development. If a Permit Application Conference is held, the Coordinator will make sure that local concerns are presented. Local input to the CRSA Board's Consistency Recommendation must be received within 20 days for 40 day permits and within 30 days for 60 day permits. Where local concerns cannot be incorporated into the CRSA Consistency Recommendation, the Coastal Coordinator must provide a justification to the local contacts involved.

Local Project Review

Local project review is mechanism for local consistency determination. There are a few actions in the NANA coastal area which do not involve a state or federal permit but are subject to a local approval. Actions for which no local governmental approval or private land use permit or plan is required are of such small scale as to not hold relevant significant impacts on the coastal area and are exempt from state consistency determination. However, it is desirable that these actions be consistent with the NANA CRSA Plan. Any local consistency determination for these actions will function internally within the district. No review is necessary or required from outside parties, organizations or agencies. The review for consistency with the policies of this plan will be conducted by the Coastal Coordinator and the appropriate village contact.

Kotzebue

Events within the City of Kotzebue which do not require a state or federal permit will have a local consistency determination made through the local Planning Commission process. For the purposes of this coastal plan Kotzebue is a proposed AMSA within the General Use Area. No special policies have been developed which are unique to Kotzebue; only the general use area policies apply. It is anticipated

that special policies will be developed expressly for Kotzebue during a future AMSA study. The chairman of the city Planning Commission will serve as the contact for the Coastal Coordinator. The uses listed as permitted for each zoning district within the city meet the CRSA Plan policy requirements for the General Use Area as long as they do not require a state or federal permit. Rezoning, conditional uses and new subdivisions are the actions which will receive individual consistency determinations. The city Planning Commission as a part of its regular review of these actions will make a consistency recommendation using the General Use Area policies. The consistency determination will be forwarded to the city council and the Coastal Coordinator. The city council may act by resolution to affirm the Planning Commission action. The Coastal Coordinator will review the Kotzebue consistency recommendation and report his concurrence to the Coastal Board within 30 days.

Any local review which the coordinator determines has consistency problems will be brought to the Board's attention as soon as possible, but no later than 30 days after notification. The Coastal Board may appeal a planning commission consistency recommendation to the city council by filing a notice of appeal as established by the city zoning ordinance.

7.6 KEY CRSA BOARD PARTICIPANTS AND RESPONSIBILITY

NANA CRSA Board

The NANA CRSA Board is responsible for local implementation of the coastal management program. They will oversee preparation of the CRSA Consistency Recommendation. They have several other responsibilities:

- Annual review, and amendment if required, of the NANA CRSA Program and review of permit actions approved under the program
- Holding Pre-Development conference reviews for proposed major projects

- o Coordination with local communities and landowners to ensure their participation in consistency recommendations, conferences, and plan amendments.

NANA Coastal Board members will serve individually on a rotating basis to act as a resource for the Coastal Coordinator and in an oversight capacity. The draft consistency recommendation for each project should be reviewed or discussed with the Board member prior to being sent to the state. Projects and other actions with great significance for the coastal area will be brought to the Board member attention upon receipt. The Board member may recommend to the Chairman to call a special session of the entire Coastal Board to determine consistency and/or conditions for development.

Coastal Coordinator

The Coastal Coordinator performs several key functions to insure that information and consistency determination are processed expeditiously. The Coordinator will function under the direction of the Coastal Board in representing the Board's interest in coastal affairs. Consistency recommendations are made by the Board and communication of these recommendations will be through the Coordinator as staff to the board.

As the initial contact point for state agencies, the Coordinator must see that information is given in a timely manner to the parties who are involved in the consistency process. Second, the Coordinator must be able to determine if the information received is adequate for a consistency recommendation. Third, a decision must be made about which projects are routine or if approval of the project has great significance to the coastal area and should be reviewed and discussed with the Coastal Board. Routine approvals will be processed by the Coastal Coordinator with the help of a rotating Board member and the village contacts. Projects with great significance for the coastal area may be subject to review by the entire Coastal Board. Fourth, project impacts will be weighed against the plan policies. A draft consistency recommendation for the Board, wording, and mitigating

measures will be developed by the Coordinator. Fifth, feedback from the local contacts and other interested parties will be integrated into the consistency recommendation. Sixth, the Coordinator will be responsible for responding with a district consistency recommendation in a timely manner. Seventh, the Coordinator will provide staff support for the Coastal Board activities and keep the entire Board advised of activities through a monthly report. Eighth, the Coastal Coordinator will be responsible for developing a tracking system which will monitor project compliance with any terms or conditions placed on the permit as a result of the local consistency recommendation. And, finally, the Coordinator will be responsible for the annual report to the state as required by regulation.

Village Contacts

The village contacts are responsible for providing local notice of the project. Village contacts will provide accurate timely input back to the Coastal Coordinator with detailed information on potential impacts and values in the area of the project. Village contacts will help the Coastal Coordinator monitor project compliance with local concerns and conditions. They are expected to be knowledgeable about their own local area, but it is up to the Coastal Coordinator to integrate their concerns into a consistency response based upon the plan policies. The village contacts will be nominated by the appropriate IRA and city council and certified by the Coastal Board.

Local Corporations

Local native corporations, who own large amounts of land within the coastal area, will voluntarily participate in the local consistency recommendation and in other relevant planning processes. The Coastal Coordinator is required to notify corporate land managers of pending consistency requests, development and recommendations and to solicit their input. This input will be forwarded to the Board. This plan's policies will provide consistency guidelines for corporate lands.

Regional Strategy

The NANA Regional Strategy currently operates as a development tracking and social service system for many projects in the coastal area. It contains a detailed organization for providing local input and knowledge into capital improvements in the area. Funding for FY 86 is uncertain; the following role of the Regional Strategy depends on continuation of the program.

The NANA Coastal Board will through participation in the annual Regional Strategy meeting be apprised of potential developments and gain an overview of project impacts in their entirety. During the annual meeting developers and government agencies can present information about projects which are planned for the coming construction season. The Coastal Board can receive early notice as to what to expect in the coming year and provide suggestions on how projects may be conducted to alleviate future problems with coastal consistency determinations during the official permitting process. This participation by the Board should reduce the need for special meetings and time extensions later on.

The Coastal Coordinator will be integrated into the Lands and the Facilities Task Force groups within the Regional Strategy administrative structure. By working with these task force groups the Coordinator can see and participate in the planning of many of the activities which will be reviewed for consistency later on. Additionally, the use of the Regional Strategy community contacts as Local Contacts for coastal consistency recommendations would be desirable.

7.7 SIVUNNIUQ: PLANNING FOR MAJOR PROJECTS

Certain types of activities have the potential to significantly impact coastal resources and create major changes within the CRSA. In the past, the people of the NANA region have worked together to face such changes and plan for the future. They call this process "Sivunniuq" -

people meeting together to make a plan. The region's residents are anxious to participate in agency planning for large scale development projects and land management decisions. A consistency determination made at the time of a permit approval often takes place after the planning process is completed. When they don't participate in the planning process, local entities require more review time for permits. Conflicts that could have been avoided by mutual agreement are costly in terms of time and effort already spent, and in project delay.

There are three procedures that will be used for major activities of area-wide concern: pre-development conferences, permit application conferences, and local partnership in planning activities. Participation in these procedures has the following objectives:

- o apply coastal management policies early in project or plan development;
- o address problems and potential consistency determination conflicts prior to the approval stage; and
- o speed up subsequent permits or approvals through resolution of issues.
- o ensure the compatibility of future planning projects with the approved coastal management program.

Policies, standards, and stipulations developed through the three procedures will be amended to the NANA CRSA coastal management program through the amendment process outlined in Coastal Policy Council procedures.

Major Activities of Regional Concern

The following types of activities and plans are considered to be major activities of regional concern:

1. Commercial Timber Sales (40 acres or greater)

2. Land Disposals

3. Fire Area Management Plans

4. Transportation Corridor Designation and/or Construction (not associated with community facilities)

5. Mineral Exploration and/or Development (projects requiring development of new airstrip or roads, or significant stream diversion)

6. Energy Exploration and/or Development (Coal, Oil and Gas not including preliminary exploring work such as upland seismic work)

7. Large Scale Gravel Extraction (greater than 25,000 Cubic Yards)

8. Classification or reclassification of state lands for the above uses

Pre-Development Conferences

At least six months prior to filing a permit application, parties proposing activities on the major activity list are strongly recommended to present a plann for activities to the CRSA Board. Presentations should include a description, location, and scheduling of the proposed activities. Within 30 days of notification of intent to make a presentation, the NANA CRSA Board will hold a presentation meeting and arrange for the attendance of affected communities and major landowners. After the presentation, discussions may be held to identify issues and conflicts that need to be addressed prior to permit review and the NANA CRSA Board preparation of a Consistency Recommendation. The Board will be ready to work with developers in project planning as requested. The Coastal Coordinator will provide a written summary to the developer, outlining major consistency concerns. Copies will be sent to Division of Governmental

Coordination.

All pre-development conferences are open to the public, and public notice of the meeting will be provided. Affected resource agencies will be notified in advance by the CRSA Board and invited to attend.

Permit Application Conference

After a permit is filed or an intent of action given for activities in the major regional activity list, the lead agency will schedule a Permit Application Conference. The purpose of this conference is to discuss the coastal management and permitting issues of the proposed activity, and to work towards resolution of potential issues and conflicts.

After receipt of the Permit Application, the Coastal Coordinator will contact the lead agency, confirm that a conference is necessary, and assist in its scheduling. This conference will be scheduled for no later than 10 working days after notification of the action is received by the Coastal Coordinator. At a minimum, representatives of the lead agency, CRSA Board, affected communities and major landowners, and affected resource agencies will be invited to participate. Depending on the nature of the activity and travel constraints, the conference may involve a meeting or teleconference. Subsequent work sessions may be beneficial to reaching consensus on consistency.

The following aspects of the proposed action will be reviewed at this time:

1) benefits to the region, local community, and Alaska
2) scale or size of proposed activity
3) alternative locations and scales of development
4) timing alternatives for development;
5) alternate site characteristics

6) impacts of the proposed activity on the people, subsistence resources, biological resources, air and water quality, and adjacent land use activities and landowners of the area;
7) mitigation procedures;
8) develop reclamation requirements;
9) other conditions and stipulations for development as required.

The Coastal Coordinator will prepare a written finding of fact on each of the 9 aspects. The findings will be included in the Board's response to the permit application.

For activities of area-wide concern, additional permit application requirements are listed in Section 7.10.

Local Partnership in Planning Activities

Sivunniuq is local partnership in state and federal planning activities that affect allocation of coastal resources in the Region. This partnership will help meet the requirements of 6 AAC 50 that state planning activities must be compatible with approved district coastal management programs.

State and federal agencies will include representatives of the CRSA Board, affected communities and major landowners in planning teams in regional planning and resource allocation studies.

Sivunniuq established a partnership between the Coastal Board, local major landowners and state agencies. The existing planning processes cannot adequately address the local needs of a subsistence based economy without this partnership. Through the use of existing state and federal planning efforts augmented by local landowners, state and corporate land and resource administrators can come to an agreement about how, where and when activities should occur to assure protection and wise utilization of coastal resources. The Coastal Board will help identify the local representatives who are necessary to work with

state and/or federal agencies to assure that the plans reflect local concerns and have credibility in both the district and in state government.

Local participation is expected in the major planning activities such as those described below:

- The Department of Natural Resources (DNR) develops land use plans containing land allocations and management guidelines known as Area Plans. Area Plans are developed for specific areas of the state to ensure that multiple uses of state land occur compatibly. An Area Plan can designate state land to be managed for commercial timber, land disposal areas, transportation corridors, mineral development and energy development. Thus the DNR area plan addresses seven of the eight activities of area-wide concern.

  To fulfill those requirements, a planning team and its advisory committee will include appropriate representatives of the Department of Natural Resources, major landowners in the district, other state departments as appropriate (such as DEC and ADF&G), and the Coastal Board. The advisory committee will make decisions as a consensus group.

- Fire management planning initiated by the Alaska Land Use Council will be used to satisfy coastal planning for fire management. This process, which involves local representatives, can meet planning needs for the portions of the fire management plan which include the NANA Coastal district. A fire management plan has recently been completed for this area which meets the CMP requirements for fire management for most of the area.

- The Department of Transportation and Public Facilities prepares Regional Transportation Studies to determine transportation facility needs and program capital projects.

As part of the regional transportation study, resource development needs are assessed, along with conflicts associated with transportation improvements. During plan preparation, local input is obtained through the steering committee and public hearings. Participation on the steering committee by the NANA CRSA Board and major landowners will meet CRSA planning needs.

- Department of Natural Resources Oil and Gas Lease Sales can have significant affects on coastal resources. In the past, the state has used the Social, Environmental, and Economic Assessment (SEEA) process to assess impacts on coastal resources and provide limited public input. Local participation in early stages of oil and gas leasing will be allowed.

- The Alaska Department of Fish and Game prepares Regional Guides to help direct departmental action on resource allocation, permitting and permit review, and policy formulation. Regional Guides have recently been completed for other areas of the state. Local participation in the drafting of Regional Guide recommendations will include the NANA coastal board.

The NANA CRSA Board will play a partnership role in the following plans, by area of concern:

- Commercial Timber sales - DNR Area Plan and amendments

- Land Disposals - DNR Area Plan and amendments

- Fire Management Plans - BLM Fire Management Plans

- Transportation Corridor Designation and/or Construction - DOT/PF Regional Transportation Studies, DNR Area Plan and amendments

- o Mineral Exploration and/or Development - DNR Area Plan and amendments, SEEA or replacement Title 38 process

- o Energy Exploration and/or Development - DNR Area Plan and amendments

- o Large Scale Gravel Extraction at new sites - DNR Area Plan and amendments and NANA Regional Strategies

- o Classification or Reclassification of state and federal lands for the above uses - DNR Area Plan and amendments

Planning Activities and Consistency

During the development of regional plans, permit applications may be submitted or other activities such as lease sales scheduled. In this situation the ongoing planning process will have input into the consistency determination process. Agencies and other parties responsible for consistency recommendations and determinations will consult with staff involved on planning teams for input on consistency.

District Program Amendment

After completion of regional planning efforts, the CRSA Board will propose amending the NANA district program to include pertinent policies, classifications, and resource data developed mutually through the specific planning process. Any amendments proposed will follow authorized procedures for district program amendment.

7.8 AMENDMENTS AND REVISIONS

Every year a formal review of the coastal plan may be initiated by the coastal coordinator. Changes can be proposed and examined which will keep the plan up to date and relevant. Some adjustments may be made to coastal boundaries or land use districts based on information from

new studies. Policies may be further refined and standards adopted to expedite the consistency process. Cooperative plans for special areas will be incorporated into the coastal plan by Board action.

This formal review gives residents, developers, local land owners and communities in the coastal area an opportunity to propose amendments and become familiar with the plan and its policies.

Adoption of an agency plan which contains new policies or use areas or changes existing policies or use area boundaries is a significant amendment to the NANA Coastal Management Plan. A plan which does not alter or add policies or use areas may be adopted as a non-significant amendment to the NANA Coastal Management Plan. The amendment must be approved by the Coastal Policy Council.

7.9 MONITORING AND ENFORCEMENT

The Coastal Coordinator is the key individual in monitoring projects to ensure that local conditions on approval are carried out in the development process. Responsibility for enforcing conditions on permits rest with the permitting agency. Community contacts will be used by the Coordinator in monitoring implementation of conditions. Individuals and communities in the coastal area may report suspected violations to both the Coastal Coordinator and state agency resource. The Coordinator will investigate the report and follow up with any appropriate action to insure state enforcement of the conditions. The Coastal Coordinator will elicit state and/or federal agency support in monitoring and enforcement and supply the agencies which are responsible for ensuring compliance with copies of local reports. This will include adherence to permit conditions, cooperative plans and coastal policies.

7.10 PERMIT PRE-APPLICATION PACKET REQUIREMENTS

In order to assist the NANA CRSA Board in making consistency recommendations, the following information is required to be included

in pre-application packets for permits and other activities requiring consistency determinations.

The description of the project or activity required on page one must include a narrative which explains the purpose of the project or activity. Written justification must be supplied if a "prudent and feasible" policy from Chapter 6.0 can not be met. Developers should note that several policies for Special Use and Restricted/Sensitive areas require specific information. Developers must also supply to the coordinator a map at the most appropriate scale (may be hand drawn) which shows the location of the activity and any structures, roads or alterations of the area. The developer must indicate the date and times the proposed activities will commence and end. Any precautions or special procedures that will be used to bring the project into conformity with the intent of the enforceable policies of this Coastal Plan must be identified. Supporting material such as studies and assessments of the project's impacts on coastal resources such as fish spawning areas and migration routes, should be submitted at this time. If the project or activity falls under the jurisdiction of a regional plan incorporated into the CRSA program, the developer may reference the plan and appropriate section and omit the preceding detailed information except for the Coastal Project Questionnaire. All this information must be received before a consistency recommendation is initiated.

For major activities of regional concern discussed in Section 7.7, the following additional information is required as part of the pre-application packet:

1) need, necessity, and benefits for the activity;
2) scale or size of proposed activity
3) alternative locations and scales of development
4) timing alternatives for development;
5) alternate site characteristics

8.0 AREAS MERITING SPECIAL ATTENTION

8.0

AREAS MERITING SPECIAL ATTENTION

8.1 INTRODUCTION

Areas meriting special attention (AMSA's) are areas singled out during coastal management program development for detailed planning. As defined in the Alaska Coastal Management Act [AS46.210(1)], AMSA's are:

> A detailed geographic area within the coastal area which is sensitive to change or alteration and which, because of plans or commitments or because a claim on the resources within the area delineated would preclude subsequent use of the resources to a conflicting or incompatible use, warrants special management attention, or which, because of its value to the general public, should be identified for current or future planning, protection, or acquisition.

Acceptable reasons for designating AMSA's are identified in the Alaska Coastal Management Act (CMA) and the Alaska Coastal Management Program standards. All proposals for AMSA's must be related to one or more of the following:

1. Areas of unique, scarce, fragile, or vulnerable natural habitat, cultural value, historical significance, or scenic importance;

2. Areas of high natural productivity or essential habitat for living resources;

3. Areas of substantial recreational value or opportunity;

4. Areas where development of facilities is dependent upon the utilization of, or access to, coastal waters;

5. Areas of unique geological or topographic significance that are susceptible to industrial or commercial development;

6. Areas of significant hazard due to storms, slides, floods, erosion, or settlement;

7. Areas needed to protect, maintain, or replenish coastal land or resources, including coastal floodplains, aquifer recharge areas, beaches, and offshore sand deposits;

8. Areas important for subsistence hunting, fishing, food gathering, and foraging;

9. Areas with special scientific values or opportunities, including those where ongoing research projects could be jeopardized by development or conflicting uses and activities; and

10. Potential estuarine or marine sanctuaries. [AS 46.40.210(1) and ACMP Standards 6AAC 80.160(b)].

The management scheme "must preserve, protect, enhance, or restore the value or values for which the area was designated," as specified in 6AAC 80.160(c). The management scheme must include:

(a) A description of the uses and activities that will be considered proper and the use and activities that will be considered improper with respect to land and water within the area;

(b) A summary or statement of the policies that will be applied in managing the area; and

(c) An identification of the authority that will be used to implement the proposed management scheme.

Any person, federal or state agency, or local government may recommend AMSA's. Coastal Management Districts must consider recommended AMSA's, but are not bound to accept an AMSA as nominated. Final decisions on AMSA designations are made during program review by the Coastal Policy Council, which considers state and federal agency comments at that time.

The use of AMSAs to manage resource use and activities can be easily abused. Ideally AMSA's should be used to resolve conflicts between uses or to protect single-purpose values of public importance only when other coastal management tools are not adequate. In the case of many potential AMSA's that were nominated by interested parties, policies, land use areas, development stipulations, and implementation (including incorporation of state and federal regulations) are adequate to resolve use conflicts or protect uses. A large number of individual AMSA's can result in piecemeal planning and additional layers of requirements for potential resource users.

Approval of an AMSA as part of a Coastal Management Program includes both the approval of the AMSA boundaries and the specific management plan adopted for it. The NANA CRSA Board's philosophy in designing AMSA's is discussed below:

- o Conflict Resolution. AMSA's may be appropriate for areas where uses of important resources may conflict. Designation as an AMSA may address conditions that reduce conflict between uses, particularly if several different resource owners or managers are involved.

- o Management Coordination. The district program may wish to use AMSA status to use or recognize existing management controls (such as in the City of Kotzebue), or to emphasize the district's desire to participate in resource management planning adopted by federal, state, and private agencies.

- o Scarce and Irreplaceable Resources. There may be areas or resources that are highly important to local residents because they are scarce or irreplaceable. In these cases, protection under other district plan elements may not be adequate.

At this point in time, the NANA CRSA has identified areas to be considered as an AMSA, but does not intend to initiate the formal AMSA planning process until after the coastal management program completes the approval process. Until this planning process occurs, AMSA designation does not confer any special status. Designated AMSA's are subject to the appropriate general, special, and restricted/sensitive policies.

The NANA Region Coastal Management Program has designated three AMSA's: the City of Kotzebue, the Ambler-Bornite District, and Eschscholtz Bay. Those AMSA's are shown on Map 1.

8.2 CITY OF KOTZEBUE

1. Location. The City of Kotzebue is located at the northwest tip of the Baldwin Peninsula. It is within Township 17 North, Range 18 West, Kateel River Meridian. This AMSA includes state waters adjacent to the municipal boundaries.

2. Description of Significance. The City of Kotzebue is the largest city within the region. It serves as the region's transportation, communication, and service center. Most of the current development within the region occurs within Kotzebue.

The city limits of Kotzebue encompass a 26.5 square mile area. Development within the city limits is confined to an area of approximately one square mile located between a large lagoon and Kotzebue Sound along a narrow flat strip of land. Further development in the area is limited by two factors. First, access across either the lagoon waterway or the airport would be required. Should such access be established, development in much of the area across from the lagoon would infringe upon the city's already limited water supply in addition to raising consideration of a host of other development considerations such as sewage disposal.

The City of Kotzebue is a high density residential area with a population of approximately 3,000 within approximately one square mile area. In addition to the year-round population, tent cities are established each summer at either end of the town each having a population of approximately 200-300.

Subsistence and commercial hunting and fishing are also prominant within the area. Subsistence fishing and hunting consist of herring and smelt fishing in the spring and ice fishing (for cod), sheefish fishing in winter and spring, duck hunting and marine mammal hunting within the sound in winter. Currently, commercial sheefishing occurs through winter and chum salmon fishing in summer with the possibility of commercial herring fishing occurring in the future. Commercial reindeer herding also takes place within parts of the proposed AMSA.

Gravel resources in the area are severely limited. The southern edge of the lagoon has been used as a gravel borrow site in the past by the Department of Transportation and is being considered for additional dredging. Recently the Corps of Engineers has issued two permits for offshore dredging (west of Kotzebue) to total 1,500,000 cubic yards of material.

Natural erosion of the shoreline takes place yearly as a result of severe storm surges and river/coastal processes. The high degree of erosion which takes place due to annual flooding is moderated somewhat

by annual sediment deposition. In addition to natural shoreline erosion, dredging which has occurred in the past and is anticipated to take place in the future has the potential to contribute substantially to the erosion problem in the area. With dredging proposed in the lagoon to the east and offshore dredging as permitted by the Alaska District Corps of Engineers to the west could result in major erosion problems on both sides of the spit on which the City of Kotzebue is located. Other commercial resource development in the area includes possible petroleum development. The state's OCS Lease Sale 45 falls within Kotzebue city limits. However, Lease Sale 45 has been postponed until 1988 or 1989.

3. Basis for Recommendation. The basis for its inclusion as an AMSA would include AS 46.40.210:

- areas of high natural productivity or essential habitat for living resources;
- areas where development of facilities is dependent upon the utilization of, or access to, coastal waters;
- areas of unique geologic or topographic significance which are susceptible to industrial or commercial development;
- areas of significant hazard due to storms, slides, floods, erosion or settlement; and
- areas needed to protect, maintain, or replenish coastal land or resources, including coastal floodplains, aquifer recharge areas, beaches and offshore sand deposits.

The City of Kotzebue is also recommended for AMSA status to recognize existing management controls and the city's desire to participate in

resource management planning with federal, state, and private agencies.

4. Ownership and Management of the Area. Land in the City of Kotzebue is owned by a variety of interests. They include the federal and state government and the village corporation of Kotzebue, KIC. Kotzebue has a patented townsite under the BLM townsite program. Lands to the south of Kotzebue are owned by the U.S. Air Force, while the state owns the airport land which borders the southern development of the city. Several Native allotments are located to the east of the townsite across the lagoon.

5. Ownership and Management of Adjacent Areas. Most of the lands outside of the developed area of the city and around the city boundaries have been selected by the Native Corporations.

6. Potential Conflicts. A large portion of the future development within the region will occur within Kotzebue. This possibility includes facilities dependent upon requiring access to coastal waters. Native allotments and the city's water supply resources to the east of the lagoon and the airport at the southern end of Kotzebue are potential limiting factors to any growth expansion efforts on the part of the City of Kotzebue. In addition, uncontrolled development of the limited gravel resources of the area could result in substantial erosion problems requiring special attention. Subsistence and commercial fishing activities are also sensitive to access to resources, proposed offshore development/resource extraction, and coastal erosion. The City of Kotzebue is the hub of many services and activities vital to the region, thus development within other parts of the region can impact the City of Kotzebue. To ensure orderly growth within the city, a more detailed plan needs to be developed.

7. Preliminary Management/Development Plan. Major landowners need to work together to plan for development in a manner that minimizes potential impacts and is fair to all parties. Members of a management/development plan task force should include some or all of

the following representatives: City of Kotzebue, KIC, NANA CRSA, NANA Corporation Board, FAA, U.S. Air Force, Arctic Lighterage, DOT/PF, ADF&G, ADEC, U.S. Army COE, and ADNR. Previous studies and land use tools that area available for AMSA planning include soil studies by the U.S. Soil Conservation Service, fishery studies for the city, the floodplain management ordinance, the subdivision ordinance, the comprehensive plan (under preparation) interrim land use policies, aerial photography, and studies sponsored by the federal government for offshore oil and gas lease sales.

8.3 ESCHSCHOLTZ BAY

1. Location. Eschscholtz Bay is located east of Kotzebue Sound, bordered to the north and northeast by Baldwin Peninsula and to the southwest by Spafarief Bay. The AMSA boundaries for Eschscholtz Bay are shown on Map 1.

2. Description and Significance. The estuarine habitat of the NANA CRSA includes the waters of Kotzebue Sound and its adjacent inlet and bays including Goodhope Bay. Kivalik Lagoon, Eschscholtz Bay, Hotham Inlet (Kobuk Lake), and Selawik Lake. The Eschscholtz Bay AMSA includes the Eschscholtz Bay and Elephant Point/Choris Peninsula Restricted/Sensitive Use Areas. Resources development is restricted in this area.

The fisheries resources of the estuarine areas of the NANA Region include marine and anadromous species. Spotted seals are a common inhabitant of Eschscholtz Bay in late summer and autumn particularly at the mouth of the Buckland River. Belukhas commonly enter Eschscholtz Bay on rising tides and leave on falling tides, occasionally remaining through the tidal cycle. The pathway commonly used follows a deep channel which extends from Chamisso Island and parallels the northern shoreline toward the Buckland River. On high tide and the first part of ebb tide, the whales commonly disperse along the north and east shores of the bay (Burns et al. 1982). In

June, belukha whales are intercepted by local hunters who herd or drive them into shallow waters of the inner bay. In some years after hunting ceases and all hunters leave, some whales return to Eschscholtz Bay and remain until at least mid-July.

Calving has been reported in all coastal regions of Kotzebue Sound in June and July; however, it is unknown whether calves are born only in the shallow nearshore coastal waters of the estuary or whether calving also occurs in more offshore areas. Most observations of calving activity are near Sisoalik and the eastern end of Eschscholtz Bay, particularly the latter location in recent years (Burns et al. 1982). Decreased observations of belukha whales in nearshore waters adjacent to Sisoalik and Kotzebue during recent years may be attributable to increased boat traffic and other disturbances (Burns et al. 1982).

In Eschscholtz Bay there are sizable runs of herring, smelt, char, and salmon in addition to large numbers of saffron cod (Frost et al. 1983).

Eschscholtz Bay falls within the Fairhaven District of the NANA Region. This district covers the area drained by the Buckland and Goodhope Rivers and the intermediate streams entering Kotzebue Sound and Eschscholtz Bay. Placer mining occurs around Chicago Creek/Candle and Penny River areas. Traces of uranothorianite and other radioactive minerals have been found in the Buckland-Kuvalik area. Additionally, silver, copper, iron, zinc, lead, manganese, and of course, coal have been located within the district. The Chicago Creek area is viewed favorably for renewed resource development, particularly for coal. Coal has also been identified on the beach bluff south of Elephant Point. Little is known about its quality or quantity.

Additionally, the proposed state oil and gas lease sale may have some effect on the area.

3. Basis for Recommendation. The Eschscholtz Bay area has important biological and subsistence resource values, particularly that associated with the belukha whale. In addition, the area may possess potentially valuable mineral resources. Multiple land owners may have differing management objectives and need to coordinate activities to avoid impacts to valuable resources while facilitating sound development.

4. Ownership and Management of the Area. Eschscholtz Bay and the surrounding coastal areas are predominantly state owned with some of the coastal area being native land as part of ANSCA.

5. Ownership and Management of Adjacent Areas. Ownership of the adjacent areas to the AMSA are similar to those within the AMSA with the exception of some federal lands to the east.

6. Potential Conflicts. Potential conflicts include those associated with subsistence activities, specifically summer belukha whale hunting by many communities, and natural resource development within the area. Resource development concerns are primarily those associated with oil, gas, placer mining, and coal development.

7. Management/Development Plan. Major landowners need to work together to plan for development in a manner that minimizes potential impacts and is fair to all parties. Members of a management task force would include representatives from NANA Regional Corporation, NANA CRSA, U.S. Fish and Wildlife Service, Alaska Department of Natural Resources, and ADF&G.

Until this AMSA completes the planning process, land and water uses within this area must comply with the appropriate general use and restricted/sensitive use area policies.

8.4 AMBLER/BORNITE

1. Location. The site covers approximately 550 square miles within Planning Area 6. It is bordered on the west by the foothills of the

Bismark Mountain area, to the south by the Kobuk River lowlands, and to the east and north by the foothills of the Baird Mountains.

2. Description and Significance. The Ambler/Bornite AMSA lies within the Shungnak Mineral District. Approximately 50 percent of the gold and jade mined in the northwest part of the state is from this district. The key areas of gold placer mining include:

- Dahl Creek
- California Creek
- Lynx Creek
- Wesley Creek
- Ruby Creek, and
- Riley Creek.

Additionally, a series of valuable metals have been located in the mountains north of Shungnak and Kobuk. This includes drilled deposits of zinc, copper, lead, silver, and gold mineralization estimated at 35 million tons at Arctic Camp and some zinc and copper, similar to Arctic Camp at Smucker. Some occurrence of coal has been identified at different points along the Ambler River. However, very little is known about it. As mentioned in the Issues Chapter, there is high potential and corresponding high interest by mining companies for future mineral development in this district. Development of a transportation corridor associated with mineral resources is also a possibility.

Mammal and fish resources used for subsistence hunting in the area include caribou, sheep, and various species of anadromous fish. Anadromous fish spawn in stream within or adjacent to this area.

3. Basis for Recommendation. The Ambler/Bornite area has important biological, subsistence, and mineral resource values. Split ownership of the area and differing management objectives create a potential for use conflicts and degradation of resource values, particularly between

subsistence uses and mineral development. In addition, there is uncertainty over the question of transportation schemes that have been proposed to support resource development.

4. Ownership and Management of the Area. Land ownership within the area is divided among the State of Alaska, Bureau of Land Management, Department of Natural Resources, native selections and some federal lands. Management of these areas will emphasize the resource values of the AMSA.

5. Ownership and Management of Adjacent Areas. Ownership of adjacent areas is also by the State of Alaska, BLM, DNR, Native selections, and some federal lands. Management characteristics previously discussed apply to these areas as well.

6. Potential Conflicts. Potential conflicts include mineral resource development with subsistence use and village lifestyle. Conflicts associated with the mineral resource development of the area include the possible development of transportation schemes to support resource development.

7. Management/Development Plan. Because continued mineral resource development of the area is likely to increase conflicts, land owners and resource agencies within the AMSA need to develop a strategy regarding allowable activities and intensive use areas. Members of a management task force may include representatives from NANA Regional Corporation, NANA CRSA, Department of Natural Resources, the National Park Service, and Bureau of Land Management. Until this AMSA completes the planning process, land and water uses within the AMSA must comply with the appropriate general use, special use, and restricted/sensitive use policies.

9.0 PUBLIC PARTICIPATION

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In order for a district's Coastal Management Program to be approved, the Alaska Coastal Management Program requires that "Each district program must include evidence of effective and significant opportunities for public participation in program development . . ." (6 AAC 85.110).

The development of the NANA CRSA program has been a long and involved effort. The reasons are twofold. The first is that a great deal of time and research was necessary to complete the resource inventory and analysis for an area the size of the NANA Region. The second, and most significant, was the NANA CRSA Board's desire to make sure that the planning process involved the region's residents, and, that the draft plan accurately reflected their views. The NANA Region is approximately 36,000 square miles in size--about the same size as the state of Illinois. There are about 6,000 people in the region, spread out among 11 villages. Accordingly, the effort to effectively involve the residents of the region in the development of the district's Coastal Management Program had to be a major element of program development.

In April of 1979, the residents of the region voted to create the NANA Coastal Resource Service Area. In June of the same year, the first Board was elected, and work began on developing the draft plan. One of the first activities of the Board was to hold a series of 22 meetings (2 in each village) to discuss important land and water use issues, and to develop a set of goals and objectives for the program. Following this period, the Board and its staff, working with consultants, began to collect and map the background and resource

information on the region that was pertinent to the program. Draft copies of this work was sent out to the village and IRA councils, as it was completed, for their review and comment. Copies of this work were also sent out for review and comment to appropriate government agencies and local groups such as the region's native corporations. This practice has continued for any draft product produced for the program.

In addition to sending these materials out to the various councils, the Board's staff and representatives from the Board have made up to two trips a year to each of the villages to review the work and to discuss the programs activities. This village travel was also used to gather information on local issues, and for mapping local land/water use activities, important biological habitat, and intensively used subsistence areas.

The NANA CRSA Board has met on the average, 6 to 7 times a year to conduct program business, to review draft products, and to provide direction to the staff and the consultants. Notices of these Board meetings and invitations to attend are sent out to each of the village and IRA councils, as well as any interested government agencies and local groups. Their attendance has always been welcomed. These meetings were announced over the Kotzebue Radio station, KOTZ and a reporter from this station usually attends this meeting. The station usually broadcasts a summary of the meeting sometime during the following two days.

Other public involvement activities during this period included the printing and distribution of special editions of Maniilaq Association's "NUNA", the association's newsletter. These newsletters dealt solely with the current status of the coastal management program, and described future activities. A slide show explaining the purpose of the program was developed for the program, and was used during the village travel.

In the late fall of 1983, the Board, the staff, and their consultants began to work on the current draft of the plan and implementation sections of the document. During the spring of 1984, final work began on assembling the Public Hearing Draft. Throughout this process, staff from NANA Regional Corporation reviewed draft work and provided comment.

A rough draft of the plan and implementation sections was completed by the end of January, 1984. A copy of this draft was reviewed by the Board, the Dept. of Community and Regional Affairs, and the Office of Coastal Management. After their review, revisions were made based on their comments, and a second draft of the work was completed.

The second draft was then distributed to the village and IRA councils, government agencies, and other interested parties for their review and comment. In order to facilitate village comment, the Board brought in a representative from each village and IRA council for a workshop to review the work and to discuss in detail specific areas within the region. Several meetings to discuss the draft work were held with NANA Regional Corporation staff, as well as Kikiktagruk Inupiat Corporation (the Kotzebue village corporation), the Kotzebue City Planning Commission, and interested state and federal agencies. Based on the information gathered from the workshop, and from comments received from other interested groups, the draft plan and implementation sections were revised and a third draft was developed and distributed.

After the third draft was distributed, the Board's staff traveled to each village to review the work with members of the village councils and interested members of the general public. Special attention was given to their respective areas within the region. Additional meetings were held with NANA Corporation, the Kotzebue City planning commission and its staff, and government agencies.

During early June of 1984, a special 16 page brochure was developed by the program's staff. This brochure summarized the third draft's

policies and implementation strategy. It also contained a copy of the draft plan map. This brochure was sent out to every boxholder in the region. The purpose was/is to solicit comment on the draft work, and to inform residents on the program's progress and schedule.

Work began on assembling the entire Public Hearing Draft in May of 1984, using the comments received from the review of the third draft, and the background and resource material developed throughout the life of the program. On July 12, 1984, the NANA CRSA Board approved the NANA Coastal Management Program Public Hearing Draft. The document was printed and distributed for formal review on August 31, 1984. The review process will last approximately three months. As required by the Alaska Coastal Management Program, two public hearings will be held. One in Anchorage and one in Kotzebue. In addition, representatives of the Board and staff will hold hearings in each of the region's villages to receive comment on the plan. The Concept Approved Draft has been tentatively scheduled for release in December of 1984.

Public participation will continue to be an important element of the NANA CRSA Coastal Management Program. It is the continuing goal of the CRSA Board to involve residents of the region, Native corporations, state and federal agencies, and other interested parties in the development and implementation of their coastal management program.